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THE ACUTE ABDOMEN*

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Since the number of disorders of one kind or another, that may give rise to the symptom complex commonly known as the "acute abdomen" is so great, the brief time at our disposal will necessarily limit us to the consideration of only a few of the more common and important varieties, such as appendicitis, gastric and duodenal ulcer and its complications, diseases of the biliary tract, intestinal obstruction, trauma, hemorrhage, and shock. Our discussion of the interrelation of symptoms and consequent difficulty and confusion in the differential diagnosis of these affections, will of necessity be general and largely based upon our own personal observation. I wish further to call attention to the fact that owing to the difficulty in differentiating the various possible diagnoses, there arises a corresponding uncertainty as to the proper course of treatment, whether to operate or not, and if so, when. While what I shall have to say will be more especially from the surgical standpoint, still it applies equally well to medicine.

Every doctor of experience is familiar with the fact that diagnosis in lesions of the abdominal organs may, and not infrequently does, involve great difficulties. Indeed it may as well be admitted at once, that in the present state of our knowledge, a correct diagnosis is by no means always possible. There are many reasons for this unfortunate state of affairs, some of which are either inherent in the nature and structure of the human organism with which the surgeon has to deal, or have to do with the varying physiological and pathological phenomena presented by it, in different cases under similar circumstances. In other words, the response of different individuals to similar stimuli, as reflected in the clinical picture presented, may not always be the same. Sometimes one symptom or a group of symptoms may be unduly accentuated, while another may be little in evidence, or even entirely wanting. Still other difficulties in diagnosis may be traced directly to errors in observation, judgment and scientific technic; to imperfections in our so-called instruments of precision, on from lack of comprehensive knowledge on the part of the surgeon himself. When, therefore, one stops to consider the reasons for the great difficulties in the way of making a correct diagnosis in diseases affecting the abdominal viscera, especially in those of the acute variety, it is rather surprising that the margin of error is so small.

It will be apparent at once that the prime reason for this difficulty in diagnosis is the presence of the abdominal wall. It offers an effective barrier to the making of an absolute diagnosis, by preventing an inspection of the organs behind it. The same is also true to a less extent of palpation. Little can be satisfactorily felt through a thick, rigid or hypersensitive abdominal wall. Certain pathological conditions occasionally met with in the wall itself, such as edema, inflammation, etc., may further interfere very materially with satisfactory auscultation and percussion. The anatomical relation of the different abdominal viscera to each other and to surrounding structures, owing to congenital variations and defects, and acquired characteristics, is not always constant. All of which may result at times in serious disturbances of function independent of, but accentuated by the pathological process present, thus

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producing a much distorted clinical picture that may be difficult or impossible correctly to interpret. But more significant even than these, perhaps, are the errors due to incomplete histories and careless methods of physical examination of cases, and faulty interpretation of certain signs and symptoms, which may lead to failure to grasp the true significance of the clinical picture presented. This may be due to lack of knowledge and proper training on the part of the attending physician or surgeon, or failure to take sufficient time to make a thorough analysis of the facts developed, or to think things through.

To add still further to the diagnostic difficulties, it is a well known fact that the clinical pictures presented by certain lesions of different organs may at times so closely resemble those of other organs, as to give rise to grave difficulty in differentiating between them. Furthermore, it should always be borne in mind that certain disease conditions of extra-abdominal structures may at times mimic so closely other affections of intra-abdominal organs and vice versa, as to require the keenest diagnostic acumen in order to distinguish the one from the other.

It will thus be seen, from this brief recital of some of the diagnostic pitfalls that beset the pathway of the abdominal surgeon, that his is no easy task. My colleague, Doctor T. R. Brown, in a recent paper points out that abdominal diagnosis is rendered more difficult by the fact that here we have no exact method of examination such as the electrocardiogram in cardiac lesions, the blood in primary anemias, the urine and functional studies in the nephritides and the sputum in pulmonary tuberculosis. We are aided a little in making such diagnoses by the study of the gastric and duodenal contents, more by study of the stools, much more by fluoroscopy and radiography of the digestive tract.

The physical examination of the abdomen is of course essential; often, however, in its interpretation puzzling and indefinite. Therefore, in many cases, in making a definite or potential diagnosis, we must depend upon the history of the case, its beginning and its evolution, and the analysis and interpretation of the symptoms. Upon our proper interpretation of these phenomena our final diagnosis most often depends.

Few of these symptoms are diagnostic in themselves; for example, constipation may simply represent faulty habits of eating and living and be purely functional, but it may be the first sign of a colonic neoplasm or of some extra-gastro-intestinal disease as, for example, unsuspected hypothyroidism; while an intractable diarrhea, usually of gastrogenous or enterogenous origin, may be the first and only symptom of the opposite condition, namely, hyperthyroidism. Indigestion, nausea, distress, and vomiting may be of gastric or intestinal origin, but they may also represent the main symptoms of cardiac or renal disease, of gall bladder pathology, or may be purely psychogenic—the mirror of a disturbed mind or the expression of maladjustment to the environment. Thus it will be seen that almost anything, from measles to cancer of the stomach, may be ushered in by more or less serious disturbances of the digestive tract. But of all the various symptoms produced by a disordered state in any of the abdominal viscera, perhaps the most common and the most significant, the symptom which most frequently brings the patient to the doctor, the symptom whose correct interpretation is the most difficult perhaps, and at the same time the most important in helping us to a correct diagnosis, is *pain*. It may be well, therefore, to devote a portion of our time to its consideration.

"Abdominal pain, in which at this time we are more especially interested, is a very complex phenomenon, and its interpretation may be made difficult by many confusing factors, namely, the common origin of the nerve supply of many of the abdominal viscera, and certain contiguous organs, such as the heart and lungs; the diversity of the paths through which painful sensations may leave the abdomen, the proximity of the visceral organs to each other (one's hand can cover the region occupied by the gall bladder, pylorus, duodenum and a segment of the transverse colon, while the thin diaphragm alone separates heart and lungs from liver, stomach, and spleen.) Perhaps an even more difficult factor in its interpretation is to be found in the wide variation in the clinical picture, due to individual idiosyncracy exhibited in

response to stimuli. Thus, a mild lesion in a psychasthenic individual may give rise to louder complaint than a really serious condition in a more stable person. Therefore, in analyzing and interpreting abdominal pain, we have to consider all of these factors—physiological imbalance, organic pathology, congenital or acquired; local or general hypersensitiveness; the overlapping and confusion of symptoms due to similar nerve supply and close proximity of organs; and the whole modified to a tremendous degree by the emotional stability or instability of the patient." (Brown).

Thus it will be seen, that since it is but a subjective symptom, it is at times hard to estimate the degree of pain, or indeed whether or not it is present at all, as it is easy to feign. There are certain signs, however, which denote intense suffering and which, when present, are usually unmistakable—the pinched features, the knotted brow, the rolling eyes with widely dilated pupils, the ashen countenance, the cool and clammy skin, the thready pulse, the increased blood pressure, the hands alternately clenched and opened, grasping wildly at surrounding objects or persons, or perhaps pressed firmly over the painful area; add to this the cries and groans, the bodily contortions and writhing so frequently seen in this connection, and a picture is presented so definite and unmistakable that in its severer grades, and in the ordinary individual, can not fail to be recognized. But it is not always thus. One sees now and then exhibitions of wonderful fortitude in the bearing of suffering, when not a groan escapes the sufferer, nor is there other evidence of the existence of pain, save that indefinable expression of countenance so well understood by the initiated. Is there or can there be anything more sublime or more inspiring in its effect upon others than such an exhibition of courage and self-control? Every medical man, whether physician or surgeon, must have been profoundly impressed by such experiences, and also by the fact that they occur relatively often in individuals from whom one would not ordinarily expect the exhibition of such strength of character.

Pain as a diagnostic factor is of the utmost importance. It has been estimated that ninety per cent of all diseases either begin with it or, at some time or other in their course, are accompanied by it. In some cases it forms the all-important factor, in others it is only an incident. The character of the pain may be of great assistance in determining its significance. Certain terms are used by patients so constantly in describing pain arising from certain structures or pathological conditions in those structures, that they have come to have a definite diagnostic value. For instance, pain arising in inflammatory processes is frequently described as "a dull ache," or as "boring," or "throbbing," in character. Nerve pains are consistently described as "burning," "shooting," or "stabbing," while I have been struck with the frequency with which the terms "stinging," or "sticking," have been used by patients to describe the painful sensations experienced fairly early in cancer of the breast. While, owing to the uncertainty of the human equation, these and other descriptive terms can not be said to be of more than relative value, they certainly are suggestive.

Then too, the relationship that pain bears to certain events may be of great assistance at times in differentiating between various conditions. Can anything be more characteristic than the pain of gastric or duodenal ulcer coming on, as it frequently does, at certain seasons of the year, or at a definite interval after the ingestion of food, or the gradual shifting of the pain from the epigastrium to the right iliac fossa in a typical case of appendicitis; or the extension of the pain from the region of the gall bladder through to the back under the right shoulder blade, in acute cholecystitis, and so on? Anybody can make a correct diagnosis frequently from the pain alone in typical cases of the affections named, but unfortunately for doctors and patients alike, not all of the cases seen are typical, and true pathognomonic symptoms are rare.

"Every pain has its distinct and pregnant significance if we will but carefully search for it." If this statement, quoted from that classical work by Hilton published many years ago and entitled "Lectures on Rest and Pain," which every physician should have read, is true, then it follows of necessity that the surgeon when consulted by a patient for the relief of his pain, will not have performed his whole duty toward his patient if he has not made use of every

means in his power to discover just what is the peculiar significance of the particular pain complained of. Hence it is that a comprehensive study of the various types of pain, in order to understand its true significance in the individual case, is of the utmost importance. Failure to do this will deprive the attending physician or surgeon of his best available source of information. I want to emphasize this fact as strongly as I can.

Head, in his classical studies on pain, has shown very conclusively that pain having its origin in certain of the different visceral organs has a more or less definite relationship to certain areas in the overlying skin. With painstaking accuracy, he has marked these out and determined their association with the different spinal segments. The misreference of pain so often observed, is ascribed to a diffusion in the nerve centres. This diffusion, Head explains on the ground that in the case of a painful stimulus applied to a part of low sensibility in close central connection with a part of much higher sensibility, the pain produced is felt in the latter rather than in the former, to which the stimulus was actually applied. The tendency to refer pain to other areas than those overlying the particular organ involved, may thus be readily accounted for, if this explanation of Head is accepted as correct. At any rate, it would seem to offer a rational explanation of the mechanism of the anginoid syndrome occasionally observed in certain cases of gall bladder disease, which is thought to be due probably to the close association of the phrenic nerve with the innervation of the gall bladder. But although the anatomy and physiology of the pain conducting apparatus have been for many years the subject of careful study by many observers, the opinions of authorities do not as yet wholly agree. The explanation, therefore, of certain phenomena observed in connection with the misreference of pain, must be left largely to conjecture.

It is quite impossible to think of pain apart from disease or injury, the two having been for so long a time so intimately associated in the human mind; for what is the meaning of the term disease (dis-ease), like discomfort, but the opposite of comfort, and what is that in its commonest form but pain? Try a moment to form some sort of a mental picture of the conditions that would exist if ill health were robbed of its chief terror—pain. Would the world be better off, or not? Is the existence of pain of any distinct benefit to the human race, or is it not? Anyone who has been obliged from any cause to experience it, or who has witnessed its effects upon others, can well appreciate what a boon to humanity its abolition would be. On the other hand, is there anything of real advantage that would be lost by its abolition? May it be possible that after all pain may have its uses, and a definite value both to the patient and to the surgeon? These questions give food for thought, but the attempt to answer them at this time would lead us too far afield. But everyone must have asked himself the question—why must it be so? Why should human beings be called upon to suffer as some of them are—the innocent along with the guilty? In the language of the psalmist, "Because the fathers have eaten sour grapes, why should the children's teeth be put on edge?"

Ever since that evening in the Garden of Eden, when the curse of sorrow and pain was placed upon our first parents, these as yet unanswered queries have lingered in the minds of their descendants,—and I fancy that they will continue to arise in the minds of succeeding generations, and will fail of a satisfactory answer, until the dawning of that blessed day to which reference is made in the Holy Writ, "Neither shall there be any more pain."

The mystery of pain! Has anything in the way of human experience given rise to more wonder or speculation than this? The passions, love and hate, have at times, perhaps, stirred to greater action or deeper feeling. Religious zeal has aroused and lifted the thoughts and emotions to higher planes, patriotism and the martial spirit have ever spurred to deeds of heroism and valor, but I doubt whether any other human experience has been more universal or more controlling than that of pain. The pursuit of pleasure in some of its manifold forms has occupied the mind of man more continuously, perhaps, but the avoidance of pain, and the institution of measures to relieve it, have ever occupied a not inconsiderable share of its attention, and will no doubt continue to do so until the end of time.

Most of the important epochs of life are intimately associated with pain or are greatly influenced by it. The beginning of life and the end of it are occasions that are rarely dissociated from pain. We speak of the pains of labor in such a way that the two terms are almost synonymous, and one rarely thinks of the one without the suggestion of the other. This is likewise true of the other extreme of life, but not to the same extent. The "pangs of death" is an expression used by the poets, but nevertheless an association of ideas is expressed thereby, which, while more fanciful than real, perhaps, has its effect upon the human mind. Few experiences, indeed, there are that are really worth while that are not, in some way or other, intimately associated with or influenced by human suffering. Pain is such a universal experience that it has been felt, in a greater or less degree, by everyone. Indeed, psychologists tell us that we rarely have a sensation or an idea which is not felt with some degree of pleasure or pain, and so it is that its study has excited interest in many minds and in all ages. But its cause, and the reason why, remain a mystery still.

"What will implacable, beyond our ken,
Set this stern fiat for the tribes of men!
This none shall 'scape who share our human fates:
One stern democracy of anguish waits
By poor men's cots,—within the rich man's gates.
What purpose hath it? Nay, thy quest is vain:
Earth hath no answer: if the baffled brain
Cries, 'tis to warn, to punish—Ah, refrain!
When writhes the child beneath the surgeon's hand,
What soul shall hope that pain to understand?
Lo! Science falters o'er the hopeless task,
And Love and Faith in vain an answer ask,
When thrilling nerves demand what good is wrought,
Where torture clogs the very source of thought."

(Weir Mitchell)

These beautiful lines by Weir Mitchell seem peculiarly appropriate in this connection.

But I must hurry on to a consideration of some of the more common lesions of the abdomen that must be studied in making a differential diagnosis in a case presenting acute abdominal symptoms. They are, first and foremost, appendicitis; affections of the biliary tract, of which acute cholecystitis, with or without gall stones, is the most common; peptic ulcer of the stomach or duodenum, with or without perforation; intestinal obstruction; acute pancreatitis, kidney colic; malignant disease; tuberculosis; trauma, hemorrhage, etc. Of course there are numerous other conditions that may at times be present, and which by their very rarity and lack of any characteristic clinical picture are extremely difficult to differentiate from the more common affections. But time forbids more than their mere mention.

In approaching the question of differential diagnosis in the acute abdomen, it may be well to remember that one's mistakes, when they occur, usually take one of three main forms, namely,

1. Failure to find any disease or lesion when one exists.
2. To make a diagnosis of a lesion when none is present.
3. Failure to detect the true character of the lesion present. Who has not been chagrined to find, it may be too late, that he has entirely overlooked a lesion which subsequent developments clearly show must have been present at the time? Which is worse, to do this or to make a positive diagnosis of some lesion and then operate and find nothing? It would seem that if err we must and "to err is human," it would be less disturbing to our pride to fail to distinguish the true character of the lesion present, rather than to fail to find it, or to fancy one finds something that doesn't exist.

Furthermore, since the acute abdomen has its origin in such a variety of causes, it may be helpful in order the better to classify our cases, to divide them into six main classes, namely: (1) Inflammatory; (2) Obstructive; (3) Perforation of hollow viscera; (4) Hemorrhage; (5) Trauma; (6) Those of extra-abdominal origin.

(1) Inflammatory—Appendicitis
Cholecystitis
Pancreatitis
Diverticulitis
Liver abscess
Glandular abscess

(2) Obstructive—(Colics) Intestinal obstruction
Biliary and renal colics
Cancer of the stomach, colon or small intestine
Cysts with twisted pedicle, chiefly ovarian
Ileus and volvulus

(3) Perforations—Gastric and duodenal ulcers
Diverticulosis
Typhoid ulcer
Bullet wounds
Stab wounds
Perforated appendix or gall bladder

(4) Hemorrhage—Bleeding ulcers
Ruptured extra-uterine pregnancy
Aneurysm
Trauma, ruptured viscera

(5) Trauma—Rupture of various organs (Kidney, liver, spleen, stomach, intestine—large or small, one or both)
Hemorrhage
Shock

(6) Those of extra-abdominal origin
Pneumonia
Infectious diseases
Heart
Boney skeleton
Retro-peritoneal

The typical clinical syndrome of almost every one of these affections just enumerated is so characteristic as to give rise to little difficulty in differentiating them from each other. I shall assume, therefore, that both physician and surgeon are quite familiar with the ordinary picture of the most, at least, of the diseases that are likely at some time to present acute abdominal symptoms—hence we will concern ourselves chiefly with a consideration of some of the atypical cases that one is from time to time called upon to treat. It is just as well to remember too, that the atypical cases are not so uncommon as they are supposed by some to be.

Let us begin then with appendicitis, the most common of all acute abdominal affections; in the typical case the easiest of any to diagnose; in the atypical case by far the most difficult, because of the wide range of possibilities, both intra-and extra-abdominal that are involved.

In a previous paper I called attention to the mimicry by certain extra-abdominal diseases of the clinical signs and symptoms of certain other of intra-abdominal origin, and showed that this may give rise to grave mistakes in diagnosis and treatment. I have been struck by the number and wide variation of disease conditions that, from time to time, I have been called upon to differentiate from some abdominal affection, usually, of course, appendicitis. Let me enumerate some of them: Certain of the acute infectious diseases, for instance, the initial stages of grippe, measles, mumps, tonsillitis, and scarlet fever; rheumatism; tabes dorsalis; Henoch's purpura; angioneurotic edema; certain of the allergic manifestations (food poisonings); actinomycosis; ruptured aneurysm of the renal artery; trauma of one sort or another; hip disease; osteomyelitis of the upper end of the femur or of the pelvis; psoas abscess; inguinal adenitis; retroperitoneal tuberculous lymph nodes; the early pain of herpes zoster; subcostal neuritis; angina pectoris; coronary thrombosis; rupture of the left ventricle; acute epididymitis in a right undescended testicle; liver abscess; renal and ureteral colic; gall stone; cholecystitis; ovarian cyst with twisted pedicle; ruptured extra-uterine pregnancy; pus tubes; pyelitis; acute pancreatitis; diverticulitis (Meckel's and others); tuberculous peritonitis; so-called idiopathic peritonitis; perinephritic abscess; pneumonia; diaphragmatic pleurisy; and septicemia with multiple abscesses. Instances, many of

them repeated, in which each one of these conditions has given rise to symptoms strongly suggesting some acute abdominal affection, most likely appendicitis, have been noted in my own personal experience. It seems well nigh impossible that many of the diseases just enumerated could have been confused with appendicitis, but such was the case.

The similarity of the clinical picture of one disease to that of another has long been observed. Repeated references are to be found to it in the literature. It was a favorite topic of Doctor Osler, and he frequently called attention to it in his clinics. One of the most marked examples of this, perhaps, is diaphragmatic pleurisy, either associated with pneumonia or not, with its tendency to refer the accompanying pain to the abdomen. Occurring on the right side, it becomes extremely difficult at times, before the development of characteristic signs in the chest, to differentiate it from appendicitis. It was only lack of necessary instruments with which to perform the operation that upon one occasion, when called to the country, prevented me from operating upon such a case for appendicitis. By the time I got the patient to the hospital the next day, the clinical picture had become so altered as to make evident the correct diagnosis.

In passing, let me call attention to the fact that in making the differential diagnosis in the case of acute abdominal affections in children, one does not have to consider so many possibilities as in adults, but in those which must be considered, there is greater liability to error. This is due in part, of course, to the greater difficulty experienced in obtaining a complete history and in making a satisfactory physical examination in the child than in the adult.

I have elsewhere emphasized the further fact that appendicitis in children is a very different thing from appendicitis in adults. In my previous communication especial emphasis was placed upon two factors that characterize appendicitis as seen in childhood, namely, (1) the insidiousness of its onset, and (2) the rapidity of its progress toward perforation and consequent peritonitis, either local or generalized. It is these two factors which influence unfavorably the mortality of the disease in children. The knowledge of this essential difference between the two conditions should make the family physician, who is usually the first to see the case, especially anxious to seek early surgical counsel in every instance where the child presents acute symptoms in any way referable to the abdomen.

The extraperitoneal affections that are most apt in children to give rise to difficulty in differentiation from acute intra-abdominal conditions, chiefly appendicitis, of course, are the acute infectious diseases, measles, tonsillitis; grippe, pulmonary affections, pneumonia, acute bronchitis (pleurisy is a relatively rare affection in children); hip disease, osteomyelitis of the upper part of the femur or ilium, psoas abscess, muscular strains, and, in young girls especially, pyelitis.

Five times have I been called to operate upon cases of pneumonia in children with abdominal symptoms so pronounced and so strongly suggestive of acute appendicitis as to completely mislead the attending physician. Fortunately, the true condition was recognized in every case, and a possible catastrophe averted. I have, however, on one occasion at least, been present when the abdomen was opened by another surgeon under the mistaken diagnosis of "acute appendicitis." In this case unmistakable signs of consolidation at the base of the right lung, which developed on the following day, and which heretofore had been absent, cleared up the diagnosis too late. In spite, however, of a subsequent empyema, for which drainage became necessary, this patient made a good recovery.

By way of illustration, may I relate a few cases selected from a large number of similar ones of equal interest that have come under my own personal observation? The first case that I shall relate is one that I saw early in my professional career, and that made a lasting impression.

A boy upon returning one afternoon from a chestnut hunt, after having admittedly eaten many of them, was suddenly seized with a severe pain in the right iliac region. He had been perfectly well up to this seizure. He was seen the next day by his physician, who considered the case one of acute appendicitis, due to eating too many green chestnuts. I was, therefore, called into consultation and first saw the boy forty-eight hours after the beginning of the at-

tack. He was found lying in bed with his right leg flexed. He had an anxious expression and looked ill. The pain was described as intense and referred to the right iliac fossa. His temperature and pulse were both high. There had been nausea and vomiting. Examination showed no muscle spasm over the lower abdomen, but there was slight tenderness on both sides, rather more marked on the right side. Attempts to extend the right leg caused great pain in the groin. Examination of this region and the hip joint revealed nothing except the tenderness referred to. There was slight pain on urination. There had been no chill. A slight cough had been noticed about the time the pain began. Expectoration was fairly profuse; nothing characteristic about it. Examination of the chest was negative, except for a few coarse mucous rales. The patient was advised to go to the hospital at once, which advice was declined by his parents. No diagnosis was made at this time except of some acute focus of infection, the exact location of which was undetermined.

The next day the patient was worse, and his parents agreed to his entering the Johns Hopkins Hospital. By this time, the expectoration had become a little blood-streaked, and his cough, which was troublesome, caused considerable pain in the lower right side of the abdomen. Examination of the chest showed evidence of a slight bronchitis. The patient looked quite ill, with herpes on the lips, but the abdominal symptoms were no more pronounced. There was no muscle spasm of the right rectus; the abdominal wall was soft, permitting deep palpitation everywhere, except low down over the symphysis and on the right side, above Poupart's ligament. The right thigh remained slightly flexed and could not be straightened without causing the patient pain. There was no tenderness over the hip joint, and limited manipulation elicited no pain. Examination of the back was negative. Leukocytes were 19,500, pulse was 120, and temperature 104°.

This was before the days of roentgen rays, so this aid to diagnosis was not available.

Because of the fact that the boy's sister was ill at home with typhoid fever, and on account of the presence of bronchitis, a tentative diagnosis at this time was made of atypical typhoid fever, although the Widal test remained negative. This diagnosis was confirmed by Doctor Osler on the following day, when the patient was seen by him for the first time. Two days later, on the sixth day, of the disease, for the first time the flexion of the thigh, which had been a persistent feature of the case, and never satisfactorily explained, suddenly disappeared, and the leg could be flexed and extended. At the same time, a slight swelling was noticed in the upper part of the thigh. Synchronous with this observation, the abdominal pain and tenderness were markedly relieved. An incision was made over the swelling, and pus was found beneath the periosteum of the upper end of the femur, having its origin apparently in the epiphyseal line. The patient's condition, which at this time had become grave, improved considerably after the evacuation of the pus, and he was apparently on the road to recovery, when he suddenly was seized with what appeared to be a right-sided pulmonary infarct, which was followed by subsequent pneumothorax, to which he finally succumbed.

This case was seen very early by his physician, an excellent practitioner, by whom the diagnosis of appendicitis was made. This was later changed to typhoid fever as a result of later developments. Although seen in consultation, from time to time by a number of physicians and surgeons of wide experience and recognized ability, not until the appearance of the swelling in the thigh was a correct diagnosis made, too late, unfortunately, to allow the application of appropriate treatment.

Some years ago, I was called to a small town in a rual district in a neighboring state, almost a day's journey from my home. There I found a young girl in her early teens with what, on paper, appeared to be a typical case of acute appendicitis of moderate grade, with the single exception that she had no muscle spasm of the right lower rectus. For this reason, I did not think she had appendicitis (the diagnosis of the family doctor), nor could I make up my mind as to just what she did have. With a temperature of 102° plus, moderate leukocytosis, nausea, vomiting, pain, abdominal tenderness, rather diffused over the whole abdomen instead of being localized in the region of McBurney's point, it was quite evident that she had something more or less serious.

I told the doctor and the parents, frankly, that I could not make a diagnosis, but that since I had to return home, and since the parents would not consent to her going back with me to the hospital, rather than leave her a day's journey from surgical help, I thought it safer to operate, even on the uncertainty, than go off and leave her as she was. This advice was accepted, and I operated.

Through a McBurney incision, I found a rather soft, slightly edematous appendix, but with no definite lesion. It was removed. It was evident that this did not account for her condition, but nothing else was found.

I told the doctor when I left that as soon as he could make a definite diagnosis, to telegraph me "collect." Twenty-four hours later, I received the laconic one-word telegram "Measles."

Two weeks later I was called to see a young girl about the same age as this patient. She presented symptoms so much like those that I had observed in the case just related that I asked the mother if she knew whether the child had been exposed to measles. She said, "Yes, her brother is down with them now, and she has been playing with him."

Operation was deferred, and the next day, the patient broke out in a profuse measles rash.

Then, like little "Jackie Horner sitting in the corner," I thought what an excellent diagnostician was I. But alas! "Pride cometh before destruction and a haughty spirit before a fall." Listen to the sequel, an excellent illustration of how easy it is to be led into error by misapplication of past experiences.

Within ten days I was called, by his family physician, who was a particularly keen diagnostician, to see the son of a colleague. Doctor H., knowing my recent experience with measles cases, and since the symptoms in this case were strongly suggestive of the two cases just reported, and since the sister of the boy was then in the house, down with measles, asked me to see the case with special reference to this possibility. After a careful examination, the attending physician and I were uncertain as to the diagnosis, particularly were we misled by the facts above related, and by the additional fact that the boy insisted upon having his abdomen massaged by the nurse in attendance, stating that the massage was grateful. As neither of us had ever seen a case of acute appendicitis in which massage over the appendix was grateful, we at once agreed that this was probably another case of measles, presenting abdominal symptoms. We, therefore, decided to defer operation and await developments.

A few hours later, I was hurriedly called in the small hours of the morning, and was much disturbed, on my arrival, to find that the clinical picture had changed, and that there was unmistakable evidence of a ruptured appendix.

The boy was removed at once to the hospital, immediate operation was done, and a perforated appendix found and removed. He made an excellent recovery, notwithstanding.

And so I could go on relating case after case (but I think I have given enough already to establish my thesis), where the diagnosis was obscured by the clinical picture of one disease so closely resembling another that great uncertainty was caused, and some delay in reaching a correct solution of the diagnostic problem. Indeed, as has been indicated, in an appreciable percentage of cases, the correct solution was not discovered until at operation and, in a certain few, not then. It remained for time or the autopsy to furnish the answer.

The lesson to be learned from all this is eternal vigilance. In doubtful cases every effort should be made, every means exhausted, to make a diagnosis; failing in this, if the patient's condition is not alarming or getting progressively worse, it is just as well to employ watchful waiting for a reasonable time. Personally, the more surgery I do, the more definite indications do I want before undertaking a surgical operation of any description. If, however, one is unable to make a definite diagnosis, and the condition of the patient is growing steadily worse, it is safer to operate without a diagnosis than to wait until it has been established, and thus possibly lose the golden opportunity to apply effective measures for the safety and relief of the patient. Here delay may be dangerous.

The human element, which always must be taken into account, and to which earlier reference has been made, still further obscures the picture with its well recognized limitations and proneness to error. Then, too, it must not be forgotten that there are comparatively few pathognomonic symptoms and relatively many

atypical cases. Every one of experience knows how often one meets with cases which present few, if any, of the classical symptoms of the disease from which the patient may later be found to have been suffering.

While the margin of error is not quite so wide perhaps, in the way of possible mistakes in diagnosis, in the case of biliary affections, the difficulties to be overcome are at times, perhaps even greater than with appendicitis. Let me illustrate.

One of the most prominent surgeons in the country had suffered for years from what were supposed to be definite anginal attacks, at times quite severe in character. No other condition had been seriously considered as a possible explanation of his recurrent paroxysms of precordial pain, so chraracteristically typical were they of angina pectoris. Being a doctor himself, he had no regular physician and he had had no recent physical examination. However, after an unusually severe attack, differing in no respect from preceding ones, except in severity, there was noticed for the first time, a distinct jaundice.

Examination by a skilled physician, who was then consulted for the first time, resulted in a revision of the original diagnosis, from angina pectoris to gallstones. He was later operated on for the removal of a stone in the common duct, after which the cardiac symptoms promptly disappeared.

Some years ago, I saw, in consultation with my colleague, Doctor Thomas R. Brown, a woman in her early fifties, the mother of three children; with no history of any acute digestive attacks; with nothing at all suggestive of gallstone colic or appendical attacks, but who, for several years, had been gradually developing progressive dyspnea with attacks of severe palpitation and precordial oppression. Her case had been regarded as one of definite and progressive myocardial change. This was before the day when the electrocardiogram was employed.

The patient became progressively worse. She was able to do less and less, the dyspnea increased. Finally, she was obliged to have the services of a nurse, and was in bed the major portion of the time. She was given digitalis and other drugs. She was seen by a great many people, including Doctor Osler. All had regarded her as a sure cardiac case, and she was treated accordingly.

The patient finally became almost a bed-ridden invalid. She was not neurotic. Suddenly, without warning, she had a severe attack of classical gallstone colic, agonizing pain, jaundice, fever, chills, bile in the urine, and the classical symptoms. The attack was so severe and she was so prostrated by it that, after a consultation of physicians and surgeons, it was decided, notwithstanding the great risk due to her supposedly extensively diseased heart, that operation was the less of two evils.

As is often the case with these cardiopaths, she went through the operation extremely well. The gall bladder was found filled with stones, which were removed and the gall bladder drained. This was before the days of cholecystectomy. She had an uneventful recovery. The thing of greatest interest was that coincident with this, there was a steady and progressive improvement in her cardiac mechanism. Her dyspnea disappeared, and she was able to give up digitalis, she no longer needed a nurse, and, while sometimes there was a little breathlessness on ascending the stairs (the patient was rather obese), her whole condition became so improved that she lived an essentially normal life afterwards.

Hemorrhage and intestinal obstruction ordinarily present a picture differing somewhat from the acute crises of inflammatory origin. But here again the exceptional case will give rise to great difficulty in its successful solution.

Massive hemorrhage into the abdominal cavity gives a train of symptoms somewhat different from that of external hemorrhage, or indeed anywhere else in the body. In the former there are superimposed upon the classical signs and symptoms of hemorrhage, those peculiar to the chemical peritonitis which accompanies the presence of free blood in the peritoneal cavity. This is further aggravated possibly by the secretions of the injured viscera, e.g. the bile, in the case of a ruptured liver—or even the tissue juices of a non-secretory organ—as in the case of a ruptured spleen, ovarian cyst, or tubal pregnancy. These signs and symptoms may be further altered depending upon whether the hemorrhage is into the free peritoneal cavity, or

whether it early becomes walled off, as occasionally happens in a slow leak from a ruptured liver, spleen, or tubal pregnancy, and usually happens in a ruptured kidney. Added to all this is the shock of the trauma causing the hemorrhage, as well as any other injuries inflicted at that time. This combination of circumstances tends to make the whole picture complicated in the extreme, and often exceedingly difficult to recognize and evaluate. For these reasons it is futile always to expect the classical textbook picture attributed to severe uncomplicated hemorrhage, such as extreme pallor, shallow respiration, air hunger, sweating, thready pulse, low blood pressure, great prostration, profound shock, etc. The important thing is always to bear in mind that hemorrhage is a possibility in every case of acute abdominal trouble, and to be on one's guard to recognize it when present. To be sure, this is not always possible as the speaker knows to his sorrow. Upon one occasion he operated upon what proved to be a dissecting aneurysm of the right renal artery, for a supposed acute appendix that had ruptured, with a spreading peritonitis. Upon another occasion he was about to operate upon a supposed acute cholecystitis, but the patient's condition suddenly became so grave that all idea of operation was fortunately abandoned. The autopsy showed a ruptured dissecting aneurysm of the hepatic artery. A colleague in Baltimore has just recently operated upon a dissecting aneurysm of the aorta, with extensive extravasation of blood in the sheath of the psoas muscle, in a case that presented a clinical picture that very strongly resembled that of an appendical abscess.

And so I could go on relating case after case where the diagnosis was obscured by the clinical picture of one disease so closely resembling another that great uncertainty was caused, and some delay in reaching a correct solution of the diagnostic problem. But I think I have given enough already. Indeed, as has been indicated, in an appreciable percentage of cases, the correct solution was not discovered until at operation and, in a certain few, not then. It remained for time or the autopsy to furnish the answer. I know of no sure way of preventing such an accident. The surest way is to keep constantly in mind the fact of the possibility of error, then to insist upon a complete history and a thorough routine examination of the whole patient, especially if a child, in every instance. Eternal vigilance in observing and weighing the relative importance of every symptom, is the price of diagnostic success. In doubtful cases, and every case should be regarded with a degree of suspicion, every effort should be made, every means exhausted, to insure a correct diagnosis. Failing in this, if the patient's condition is not alarming or not getting progressively worse, it may be well to employ watchful waiting for a reasonable time. Personally, the more surgery I do, the more definite indications do I want before undertaking a surgical operation of any description. If, however, one is unable to make a definite diagnosis, and the condition of the patient is growing steadily worse, it is safer to operate without a diagnosis than to wait until it has been established, and thus possibly lose the golden opportunity to apply effective measures for the safety and relief of the patient. Here delay may be dangerous. In the presence of an acute undiagnosed abdominal crisis, better an early operation perhaps poorly done, than a late one well done.

So far I have refrained from discussing the part that the so-called laboratory methods and instruments of precision should play in the differential diagnosis of the acute abdomen. This does not mean that they do not have a very important part, for in my judgment they do, but it should be a subordinate part. Says Brown, "We must not discard the art of medicine. The microscope, the test tube, the instruments of precision and the x-ray can not as yet replace the eye, the ear, the fingers and the results of observation. There is unquestionably too great a tendency at the present time to lean too heavily upon laboratory methods and too lightly upon pure clinical observation. If we recognize this imbalance and, while not neglecting the results of the laboratory methods which are invaluable, attempt to recapture the marvelous clinical sense, the wonderful powers of observation, analysis and deduction of *Bright* and *Addison* and *Sydenham*, of *Osler* and *Thayer*, perhaps we may reach the goal of every true diagnostician, where we can say with *Neusser*, the greatest clinician of his day, that "The history of the case should give us our correct diag-

nosis; the physical examination and laboratory tests should be merely confirmatory."

If I were to attempt to sum up the whole matter of the diagnosis of "The Acute Abdomen" in a sentence, it would be something like this, "that physician or surgeon who properly correlates his facts, wisely interprets them, and then uses the soundest judgment in the application of these facts to the solution of the individual problem, will achieve the largest measure of success."

THE PHYSICIAN OF YESTERDAY AND TODAY*

JAMES S. McLESTER, M. D.
BIRMINGHAM, ALA.

We live in a changing world. All human relationships are in process of change, and especially is this true of that happy relationship which has existed for so many generations between physician and patient. This interests us keenly, you and me—and as we watch at close range the drift of the sands of medical practice, as we see them assume new forms, we try to understand it all, and to plan.

We may try even to guide this drift of the sands and to be of some influence in determining their ultimate shape. To exert such influence may be possible, but only if we can envisage the thing as a whole and can recognize that our own shift of economic and professional status is merely a part of a world-wide change which today is disturbing even business and professional relationship. If we are pessimistic we say that there is nothing we can do; we merely drift. If, on the other hand, we are willing to look at the thing in proper perspective, if we have faith and courage, and above all, if we are willing properly to adjust ourselves, then perhaps we, of the profession of medicine, shall be permitted to continue our cherished freedom of action and to preserve unimpaired our influence in the world. This is what we propose to do.

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The drift of medical practice which we are watching today is not difficult of explanation. The great advances in medicine and the development of technical procedures have resulted in a narrowing of the lines of endeavor and in the widespread development of specialism. The necessity thus forced upon a few patients (and the desire of many more) to consult several specialists during a single illness, together with a demand for more elaborate hospital service, has added enormously to the cost of sickness. To families of moderate means illness not infrequently comes as an economic catastrophe. Especially is this true of those of the lower income brackets, and it was primarily to help these that the now famous Committee on the Costs of Medical Care was formed. Its two reports are familiar to everyone, that of the majority, signed by students of sociology and a number of physicians, and that of the minority signed largely by physicians. One opinion was concurred in by both groups, that is that the average income of the medical profession is already grievously small and that it is not possible further to reduce professional fees. Some other solution must be found. Upon the nature of this solution, however, the two groups failed to agree. The majority proposed among other measures the establishment of large group clinics centered around hospitals the country over, the cost to be defrayed by taxation, by insurance or both, a plan somewhat akin to the English panel system. This is true socialism of medicine. Opposed to this was the minority. They called attention to the many abuses and generally unsatisfactory nature of the panel system, to the iniquities of increased taxation, to the great reluctance of all physicians to give up their independence and become mere minor officials in a bureaucratic scheme of medicine, to the loss of initiative which must inevitably follow, and to the fact that more than 80 per cent of sickness can be cared for by the well-rounded general practitioner alone, without the aid of the specialist. Their first recommendation, then, was that united

efforts be made to restore the general practitioner to the central place he formerly occupied in the practice of medicine. It is of this, the place of the general practitioner in the medicine of the future, that I wish briefly to speak.

The argument for the universal establishment of group clinics is based upon two fallacies, first that the specialists who comprise these clinics are essential to the proper care of most patients, and second that the technical procedures of the large clinic or hospital are universally necessary. Both assumptions are wrong. The first of these ignores the evident trend away from specialism. This is due to the increasing realization that we should treat primarily the patient and only incidently the disease from which he chances to suffer. To think in terms of the patient as a whole, and in arranging treatment to consider general physiology first and local pathology second, is today the accepted method, and this requires a breath of vision that is encountered as a rule only in a physician whose interests are general. The specialist, whom the patient consults at the group clinic, because of his training, and the nature of his work, is prone to think only in terms of his limited area; and, losing perspective, he fails by a wide margin to envisage the whole. In 80 per cent of patients the problem can best be understood, not by the man or group of men who with great precision see through the microscope of specialism but by the man who because of the breadth of his vision can grasp the details of the entire picture. Group clinics have their place, a very important place; they have contributed materially to the development of medicine; but the number of patients who need their services is small, and theirs is not the way, the country over, to practice medicine.

The second assumption which forms the basis of argument for the establishment everywhere of group practice is the false estimate which is placed upon the relative importance of phyisican and instrument. From this viewpoint the value of the instrument is unduly magnified and technical procedures are regarded as of paramount importance. True, this applies in a few cases, but these represent the exception, not the rule, and if universally applied such an assumption would do incalculable harm to the practice of medicine; we would lose all acuteness of perception, and physical diagnosis would become a lost art. It is a mistake, too, to assume that it is possible only in properly organized clinics and hospitals for the patient to secure the benefit of those technical procedures which require special skill and instruments of precision; for those simpler procedures which are of almost universal usefulness can be carried out by the alert physician in his own office, and the more complicated ones, requiring costly apparatus, are provided by independent laboratories to which, if it is so desired, the exceptional patient can be sent. Instruments of precision, valuable as they are, can never take the place of the well trained human senses. The physician whose judgment is most to be trusted is not the one who has learned to read the radiograms or to interpret the electrocardiogram, but rather is the one who through years of sympathetic study of his patient has learned to observe accurately and to reason soundly.

The difficulties of modern practice are not essentially different from those of forty years ago. The requirements are merely more exacting. The physician of the last generation was as a rule the most influential, most respected man in his community. His uprightness of character, his culture and breadth of vision, and his human sympathy made of him a man whose opinions everyone sought. If he had a specialty it was, consciously or unconsciously, the study of man. These same qualities are required today. The same human touch, the same depth of interest, the same breadth of vision. Only the degree of learning has changed; this is far greater than the learning demanded forty years ago, but fortunately the need has been adequately anticipated by a longer and infinitely more exacting period of training. To-

day, before the young graduate is permitted to embark on his career he is given a degree of culture and learning that is sufficient to meet these demands in full. Success depends upon the stuff that is in him. If he reads widely, if he will keep mentally alert by contact with his fellows, if he will adjust himself to the needs of a changing world, if instead of confining his interests to some limited area he will endeavor to maintain a comprehensive grasp of the entire field, and above all if he will keep always a sympathetic interest in human nature, then he will be able to provide unaided for the great majority of patients who turn to him. Success will come in even greater measure, I confidently believe, than came to his forbears.

The real test, then, is one of character and of the ability to work. We may be caught in a drift of the sands which is not to our liking, and the social or economic status in which we find ourselves may for a time be disheartening, but if we accept the situation philosophically, and ungrudgingly give to our work the best there is in us, then, I believe, we shall hold our place among men. I do not know whither we are drifting; none of us know, but I have the courage to play the game and the faith to believe that for the physician of character and skill, the world will always find a suitable reward and a place of dignity, not as a mere cog in a piece of machinery, but as a councillor who fills a human and thoroughly personal relationship.

LAMBLIASIS (Giardiasis)*

A. H. LITTLE, M. D.
OXFORD, MISS.

The purpose of presenting this subject for your consideration is to call to your attention one of the possible causes of diarrheas, especially those whose exact etiology may not have been definitely established.

The reason for stating "possible cause" is that there appears to be conflicting opinions as to whether Giardia lamblia or any other flagellate ever causes pathological conditions. Dobell states that "there is insufficient evidence for regarding any of the intestinal flaggellates as pathogenic." As grounds for this view he cites the facts: (1) that there is no good reason for considering intestinal flagellates as more common in cases of diarrhea than in well persons; (2) that parasites of the alimentary canal which do not attack the tissues of the host, as is the case with intestinal flagellates, are not harmful; and (3) no method of treatment has yet been discovered which will remove such an infestation. Hinman states that in his experience "it (giardia) may be frequently associated with diarrhea, but in the majority of cases, apparently produces no symptoms and that it is very doubtful if it is ever a direct cause of diarrhea." Todd states that "the parasite is generally considered of little pathogenic importance, but appears capable of causing a chronic entero-colitis with mild diarrhea which is very resistent to treatment." Osler and McCrae state that "Lamblia intestinalis was a frequent cause of enteritis during the World War, and that the general condition of the patient was markedly affected." Simon states that "according to Wenyon, of all the flagellates of the human intestine, Lamblia intestinalis has the best claim for pathogenicity." This is obvious when one considers the great activity of these organisms and the manner they have of attaching themselves intimately to the intestinal epithelium. Most authorities now recognize a distinctive form of diarrhea which is associated with the presence of these parasites in the intestinal tract. Fantham and Porter report, for example, 187 cases of pure lambliasis among 1,305 British soldiers invalided home from Gallipoli from the western front, during the recent world conflict. According to Jelks, Giardia lamblia "are certainly pathogenic and productive of symptoms complex which include digestive, metabolic, neurological and skin manifestations chief among which are vertigo, insomnia, nervousness, unreasonable association of

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ideas, melancholia and atrophic skin lesions, and pellagra." It is the author's opinion that the flagellates are capable of producing a distinct diarrhea and a group of symptoms that may be considered more or less characteristic, namely, vague pains, cramps or soreness in the abdomen, mild distention of the abdomen from gas, vertigo, dryness of the skin, loss of weight, lassitude, weakness, and mental disturbances of the melancholic type. In the opinion of Rudner "if this flagellate is in abundance and the patient shows evidence of avitaminosis, then giardiasis is considered pathological." He also considers it pathological when the stool examination reveals numerous flagellates.

Lamblia (giardia) intestinalis is only one of a group of flagellates which are protozoal organisms belonging to the class Mastigophora. They have as their chief characteristic whip-like processes of cytoplasm, flagella, and are actively motile. The Lamblia intestinalis possesses eight flagella and two sucking discs and because of this large number of flagella and their activity the lamblia (giardia) probably is responsible for as many as or more cases of dysentery than any other flagellate. The other members of the group found frequently are trichomonas and Cercomonas intestinalis.

Flagellate dysenteries are for the most part confined to warm or hot climates and are quite prevalent in our lower gulf states. The organisms gain entrance to the intestinal tract by the ingestion of contaminated food or drink, attach themselves to the walls of the intestinal tract by their sucking discs and remain until they dislodge themselves and move to another location by the assistance of their flagella or are removed from the intestinal tract by proper treatment. According to most authorities the upper part of the small intestine is the favored location for lamblia (giardia) in the early stages of the disease but the entire tract becomes involved very rapidly. The pathological changes in the intestinal walls appear to be very superficial involving only the mucosa and resulting in congestion and erosion of the epithelium. In the very severe cases the erosion may extend beyond the epithelium into the underlying structures.

The signs and symptoms of lambliasis (giardiasis) which have been previously mentioned are: vague abdominal pain, cramps or sensitiveness; mild gaseous distention of the abdomen with borborygmi; the passage of numerous watery stools containing mucus and possibly blood with tenesmus in the more severe cases, vertigo, depressed mental states, nervousness, insomnia, dryness of the skin, loss of weight and extreme weakness. The demonstration of numerous lamblia (giardia) in the stools will establish a positive diagnosis. In unmixed cases this organism will be found alone in great numbers after a drastic purge with magnesium sulphate.

Numerous plans have been suggested for treatment. According to Jelks the diet should be free from carbohydrates, fresh vegetables, pork, pepper or other irritants. He suggests acidophilus buttermilk, sweet milk with lime water, albuminous foods, fowl, fish, beef, junket and gluten bread. The foods should be well prepared and made easily digestible.

Thorough elimination of the intestinal tract by castor oil or magnesium sulphate should be done early, before drug administration, and frequently. Water should be given in large amounts to aid in washing the intestinal tract and to combat dehydration. Frequent enemata of plain water or soda water are beneficial. Treatment by the transduodenal route is advocated by some and Bassler suggests a solution of sodium sulphate and sodium chloride, 270 grams each in 900 c.c. water, boiled and filtered, to be used in 30 c.c. amounts in one liter of warm water as a duodenal irrigation. Following this irrigation 0.3 grams neo-arsphenamine in 400 c.c. warm water may be placed in the duodenum for the purpose of destroying the giardia that have been set free by the hypertonic solution used previously. This procedure may be repeated after four or five days. In the more severe cases neo-arsphenamine in 0.3 or 0.4 gram doses may be given intravenously with good results. After the initial transduodenal treatment P-carbamino-phenyl arsonic acid (carbarsone) in 0.25 gram doses may be given twice daily by mouth for ten days. Dur-

ing the administration of this drug cramplike abdominal pains, itching of the skin or recurrence of diarrhea may occur and when such symptoms are observed the drug should be omitted until they have disappeared. It may then be started in reduced amounts. During the administration of carbarsone, milk, cheese, or butter should be avoided.

CASE REPORT

R. C., white male, aged 25 years. Admitted July 23, 1933. Discharged August 8, 1933.

Complaint: Diarrhea, weakness and loss of weight. Family History: Father dead, heart trouble; mother dead, aged 50 years, appendicitis; brothers, two living and well, one dead, appendicitis; sisters, three living and well. Habits: Regular, smokes, and drinks alcoholics very moderately. Past History: Mumps at three years; whooping cough at ten years; measles at nineteen years; malaria several times. Present Illness: Onset about two weeks before admission to hospital with frequent watery stools which have gradually increased in frequency since onset failing to respond to any treatment used, although opiates have been taken frequently. Has lost about twenty-five pounds in weight and has grown progressively weaker since onset until the slightest exertion produces profound exhaustion. Has noticed no elevation of temperature above normal. Vague pains and uncomfortable sensations have been felt in the abdomen which has been slightly distended with gas frequently causing rumbling sounds. Much pain and tenesmus has been experienced during the past few days and some stools have been blood tinged and all have contained mucus. Nervousness and insomnia have been observed. Physical Examination: Height, 5 ft. 8½ in.; weight, 155 pounds (usually 180); nutrition, fair; temperature, 98°F; pulse, 100; respiration, 20 per min.; blood pressure, systolic 124, diastolic 72. Head: Negative except for extreme paleness of sclera and moderate ptosis. Facial expression of languor and listlessness. Lungs and Heart: Apparently normal. Abdomen: Slightly distended, slight tenderness over entire area on deep palpation, tympany on percussion, no masses felt, no rigidity noted. Neurological: Reflexes apparently normal. Moderate tremor of hands. Mild ptosis. Semi-stupor and melancholia noted. Skin: Very anemic in appearance, no eruptions found, unusual dryness noted. Laboratory Reports: Feces, numerous flagellates of Lambia (giardia) intestinalis. Urine: Traces of albumin and bile. Rare pus cell and granular cast. Diagnosis: Lambliasis (Giardiasis). Treatment: The lower bowel was thoroughly cleansed by enemeta. All carbohydrates were eliminated from the diet. Trans-duodenal irrigation with sodium sulphate and sodium chloride solution followed by neo-arsphenamine was given. Three-tenths gram neo-arsphenamine was given intravenously. Carbarsone 0.25 grams was given by mouth twice daily for ten days. For relief of abdominal distress and extreme tenesmus, opium was given.

Progress Notes: Number of stools during first twenty-four hours, twelve; during second twenty-four hours, ten; during third twenty-four hours, seven. The number per day gradually diminished until only one stool was recorded on the tenth day. Four days after admission the abdominal cramps and pain had disappeared. By the sixth day of treatment, the mental attitude had shown improvement and the appetite was better. By the tenth day the stools were apparently normal and contained no giardia. Discharge was on the sixteenth day at which time all symptoms were either greatly improved or absent.

DISCUSSION

Dr. J. M. Acker, Jr. (Aberdeen): I feel very much like Dr. Darrington, this is a dangerous world to live in, but seriously speaking I want to thank Dr. Little for his most excellent paper, and as far as I am concerned I want to say he has brought to my attention a most interesting condition. I am free to admit that about all I know of it is what I have learned by reading Dr. Little's paper, and the perusal of the scant literature I could find on the subject. One authority in Chicago reports a series of 8000 people who reported for examination for physical ailments and in 7 plus per cent were found with some protogen. This same authority reports that 6 per cent of all diarrheas contained some protogen infection and lists lambliasis as the second most prevalent. The first American case was reported in 1920. Dr. Ware Frelling of Coral Gables says that the condition is most frequent in children. Dr. Simon of New Orleans says that it is not rare in children. As to the pathology it seems that the older authorities did not regard it as of much pathological significance; however the later authorities, beginning with Osler began to see that the condition did have some pathological significance. It produces a distinct intestinal irritation that results in malnutrition and skin infection. It is sometimes found in gall bladders, making it clear that it may have some connection with gall bladder disease, and the examination of duodenal biliary drainage has brought forth a great many cases of this manifestation. Dr. Paul Whittaker of North Carolina reports a typical textbook duodenal ulcer case treated for five years without results but after demonstration of lambliasis and treatment for same the patient has remained well for eight years. As to the treatment, the authorities that I read haven't much to say, and I can not add anything to what Dr. Little has said. I would like to ask

Dr. Little in his closing remarks if he has kept track of his various cases and how long they have been free of the infection. I want to again thank Dr. Little and as I said before I am glad to admit that he has brought a subject to me that is most interesting and one I am going to look into more thoroughly when I go home.

Dr. J. G. Archer (Greenville): I want to apologize for getting up here again right after having tried to make a few remarks a while ago, but Lambia giardia is certainly a puzzling condition to treat.

In the Delta we have had quite a few cases, and there are a few points that I would like to mention that have come to my attention in the treatment of these cases.

These patients usually complain of a great deal of pain in the epigastrium. There seems to be more pain in the epigastrium than in any part of the abdomen. They vomit bile as a rule. They also pass bile by bowel. It is frequently hard to find the lamblia in the stools, and as Dr. Acker suggested a while ago duodenal drainage frequently will aid in diagnosing these cases.

The treatment is very difficult. Frequently we feel that the condition is cured but at a later date have these individuals returning complaining of the same symptoms, namely frequent watery stools containing bile, considerable discomfort and pain in the epigastrium, and the vomiting of a great deal of bile. I have seen several cases that I have struggled with off and on for at least a year, and I wonder if I will be successful in obtaining a complete recovery in them, even though my treatment has been pretty much the same as outlined by the essayist.

Dr. Leon S. Lippincott (Vicksburg): Several years ago flaggellates in the intestine were mostly considered as non-pathogenic. It has been interesting from year to year to note how opinions have changed. We have been finding another flagellate, the trichomonas, in the urine. Of course, it is often found' in the vagina, but we have found it in the urines of both male and female patients. The fact that it is sometimes found in catheter specimens would indicate that the bladder harbored the organism. I have not been able to find much in the literature about the occurrence of trichomonas or other flagellates in the bladder. I would like to ask Dr. Little if he has found lamblia in the bladder or the vagina.

Dr. Geo. W. F. Rembert (Jackson): I regret to say that my knowledge of this subject is very limited. It is about on a par with Dr. Acker's. I haven't had an elaborate report. I have found a trichomonas increase in the other type, but I do not know anything about it except what I have been able to hear here and at another medical meeting.

Dr. W. L. Little (Wesson): As one doing general practice who hasn't the equipment to assist in working out a difficult diagnosis, and since hearing this paper read, it occurs to me that many cases of pellagra that resist treatment are caused by lambliasis.

Dr. W. H. Frizell (Brookhaven): May I ask the essayist to bring out that this trouble is being noticed more in recent years due to the fact that there are more people going to the tropics and coming back; that all this protozoan trouble was originally tropical disease and has been brought back here just like we had during the Spanish-American war, when they brought in more of the dysenteries that we had.

Dr. A. H. Little (Oxford): I do not want to leave the impression that I know very much about this subject. My information has been very limited, and I have had only a very few cases under observation within the past few years, and that was my purpose in bringing this subject before the physicians to call their attention to the importance of examining the stools more carefully and more frequently, and that is probably why we find these cases, because we are probably using more careful laboratory methods than we did a good many years ago. I think we are indebted to the laboratory men for that.

With reference to Dr. Archer's comment on the recurrence of symptoms, I have had one case under observation for two years that has had no recurrence of symptoms, one case under observation for six months with no recurrence, and one case that has had frequent recurrences.

If you will recall from the literature Silverman reported four cases of lambliasis some years ago. I do not remember exactly when but it was reported at the Southern Medical meeting in Dallas. I won't say absolutely, but he reported these cases which showed the encysted form, and also that showed definite symptoms of gall bladder disease, and that was his purpose in presenting those cases, I understood, to show the relation—just between the encysted form with the chronic type and the symptoms of gall bladder disease in which the gall bladder was really diseased.

I have not found the flagellates in the bladder, but have had it demonstrated in the vaginal smears. The symptoms according to most authorities at the present time do resemble those of pellagra, or you might say are associated with pellagra and in my opinion a case of lambliasis that has existed over a period of time will give I think a clinical picture or very close to one of pellagra. Now the reason probably that these cases are not found possibly so much is that they are treated in the doctor's office. I wrote to several hospitals in the South and asked how many cases they had on record for 1933. The State Charity Hospital of Louisiana reports one case, the Baptist Memorial Hospital in Mem-

phis one. The general hospital none. Probably the local cases are treated by physicians at the offices.

I have attempted to answer most of the questions and I hope that this will help to clear up some of the points. I certainly appreciate the most interesting discussions. I do want to say in closing that my experience has been very limited in these conditions and I merely wanted to give this subject, hoping that you might get some points in aiding you in making your diagnosis of diarrhea that you had previously been unable to diagnose.

EARLY DIAGNOSIS OF SYSTEMIC REACTION TO THE HEAVY METALS*

M. T. VAN STUDDIFORD, M. D.
NEW ORLEANS

Mercury was used in antiquity by the Arabs for affections of the skin and by Widmann for the treatment of syphilis as early as 1497. It is still employed as a very useful drug. Mere mention of this drug, however, has struck terror in the minds of certain physicians and patients. This aversion was not without cause or reason. Because of the lack of knowledge of its proper dosage and the administration in the early years of its use, salivation for prolonged periods was frequent.

Today, with modern methods of administration, exact dosage, careful attention given to the patient before, during and after therapy, complications are still numerous but are less severe and less common than are recorded in earlier medical literature. Bismuth has superceded mercury as an adjunct to the arsenobenzenes, and this is probably one of the factors which may account for the decrease in the number of patients suffering with mercury complications.

Stomatitis is the first symptom of intolerance to mercury; and a reaction in the tissues of the mouth in a patient with an idiosyncrasy to the drug may follow a single intramuscular injection of a mercury salt. A slight fetor to the breath, a vague aching or sensation of soreness of the gums, a moderate swelling of the mucous membranes of the mouth, may herald the onset of mercurial stomatitis. When stomatitis is established, the tongue becomes slightly swollen and flabby, salivation usually appears within a few days, the gums begin to recede from the teeth, small ulcerations may occur and the patient presently develops constitutional symptoms such as malnutrition and anemia.

Before treatment with mercury is begun, it should be a rule to examine the teeth and gums, and to see that a thorough dental prophylaxis has been accomplished. During treatment the teeth should be cleaned twice daily and rinsed with an alkaline mouth wash. Gastro-intestinal disturbances of a serious degree are rare, but irritability of the intestinal tract may be regarded as a warning of susceptibility to mercury. Such symptoms as cramping pain or diarrhea may be evidences of a sensitiveness to mercury.

Mercurial eruptions are rare, but occasionally eruptions not unlike those that occur after the use of the arsenicals have been reported in the literature.

Nephritis due to mercury is well recognized. The kidneys excrete from 60 to 80 per cent of the mercury absorbed by an individual. Too prolonged administration of mercury may result in kidney damage. The urine should be examined at frequent intervals for the slightest evidences of renal irritation.

Bismuth, the latest addition to the group of heavy metals used in combating syphilis, has few contraindications that are discernible before administration. The bismuth line extending along the tooth margin, however, may follow a very small amount of bismuth. Treatment with bismuth need not be discontinued merely because of its presence. The onset of a stomatitis, however, is an indication to stop bismuth. In this condition tissues of the mouth are all edematous, salivation is marked and the gums rapidly become inflamed and painful. The fetid odor may be lacking. Gingivitis is often localized and ulcerations may develop. The ulceration is generally superficial, circumscribed and covered with a whitish or brown pseudomembrane. Surrounding such a lesion are deposits of bismuth which are more or less extensive. The cheek, tongue, lips and tonsils may be involved.

In the only case of extensive involvement

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seen in our service this ulceration healed rather rapidly. Mercury stomatitis starts with fetid odor to the breath and is accompanied by salivation, while bismuth stomatitis is always preceded by pigmentation of the gums. The salivation and odor to the breath are less marked.

Gastro-intestinal disturbances are known to occur from intramuscular injections of bismuth, but are infrequent. There may be such symptoms as frequent belching or a feeling of slight gastric distress. Following the administration of some preparations of the water soluble salts of bismuth, certain patients in both clinic and private practice have developed a severe gastric distress folowed by acute and prolonged painful diarrhea. These untoward effects are noted soon after administration. Eruptions of the skin may appear and in such patients the dermatitis is usually evident the day following an injection. The lesions may be urticarial or morbilliform. They disappear in several days but recur after the next injection. When severe and lasting, only the cessation of treatment causes their disappearance. Deposition of bismuth in old syphilitic lesions is rather frequent. Such pigmentation may fade or remain permanently. The erythematosquamous eruption which results from bismuth may be similar to the exfoliative eruption following the arsenicals. It may or may not develop in patients who have had the arsenicals and borne them well or who have reacted badly to the arsenicals. These eruptions follow the course of the exfoliative eruption of arsenical intoxication so closely that they will be described under that subject.

ARSENICAL DERMATITIS

When Ehrlich introduced salvarsan, small parcels of this most important drug were shipped over the world and its administration was spectacular. Later its derivatives, neoarsphenamine, sulpharsphenamine and lesser important combinations, were made generally available and their use became commonplace. Today many physicians, or too often their office assistants without qualifying degrees, may administer injections of these potent drugs without the least fear or trepidation on the part of the ones receiving the injections or those giving the injections.

Even with care in the manufacture, correct dosage and proper technic of injection, reactions occur. These unfavorable reactions may be due to three principal causes. These are the patient's idiosyncrasy to the drug, extended therapy producing saturation of the patient, and over-dosage.

Fortunately there are warning signals and danger signs hoisted soon enough to avoid many of the more serious reactions.

Any of the following reactions may occur during or after administration of any of the arsphenamine group.

Early Constitutional Reactions. For purposes of clarity it is well for us to consider the skin disturbances as early and late. While the early reactions are in no respect diagnostic, they are still sufficiently characteristic when viewed in their proper clinical background to provide a basis for discontinuance of the arsphenamines and institution of therapy. The nitritoid crisis and Jarisch-Herxheimer reactions may here be mentioned. The crisis is usually transitory and may be tentatively regarded as a state of acute and severe vasomotor instabiliity resulting from the chemical actions of the drug. The Jarisch-Herxheimer reactions are common in early syphilis following the initial dose of the arsphenamines and have been likened by many investigators to an allergy disturbance. This is at times severe.

The Early Skin Reactions. One should interest himself in those grave danger signals which come in four to thirty-six hours after an injection. These are of two types: first, the urticarial pruritis, such as itching of the palms, soles, swelling and tightness of the fingers, swelling of the lips; second, the transitory eruptive state of a morbilliform or scarlatiniform character in which the eruption may or may not itch and which fades in a few hours or a day.

The Severe Arsenical Dermatitis: Late Reaction. The severe reaction usually starts with general malaise, chilliness and fever; shortly with these constitutional symptoms there frequently develops nausea and pruritis. After some hours a dusky morbilliform or scarlatiniform eruption appears on the ears, forehead, face, neck, body and extremities. In a day or so the surface of the eruption seems to acquire a metallic lustre or sheen; it then forms fine vesicles and occasionally small blebs which be-

come pustular; subsequently over a period of days these rupture and form crusts. During this transition the patient's temperature tends to remain steadily between 101° and 103° F. The skin, ears, lids, face and extremities become edematous and the body as a whole is swollen. When the dermatitis is well established, within one or two weeks, the conjunctiva, tongue and fossae are inflamed. Shortly thereafter the skin eruption in the flexures, on the neck, and on pressure areas begins to weep. Fortunately in the less severe cases there is an abatement of symptoms, the swelling subsides, desquamation occurs, the temperature reaches normal in from 6-10 days and the patient is ready to leave the hospital in two weeks. Those patients who are less fortunate become progressively worse, possible over a period of weeks; swelling of the skin and deeper tissues of the arms, legs and body brings continued discomfort. Rhinitis, photophobia, conjunctivitis, swelling of the external auditory canal, weeping from fissures of the scalp, the flexures and other areas are all more pronounced. Bronchitis is usually present and may be severe. Anorexia, nausea, diarrhea may supervene; sensations of chilliness may persist or rigors may occur. These symptoms may continue to the 16th to 20th day of the disease in uncomplicated cases.

COMPLICATIONS

The most common complications occur in connection with the skin, the lungs and gastro-intestinal tract. Furunculosis develops in the external auditory canals, in the hairy regions, axilla, inguinal regions and pressure areas of the body; and otitis media with or without mastoiditis is prone to occur as a sequel to severe rhinitis and the recumbent position.

Diarrhea is frequently due to inflamed mucous membranes of the intestinal tract and serves to further impair the patient's nutrition. Bronchopneumonia may come as a sequel to the bronchitis or with exhaustion. These complications are usually ushered in with a sharp rise in temperature.

Jaundice and optic neuritis are accompanying complications of less frequency.

Dehydration acidosis and myocarditis are complications usually found in the terminal stages.

Diagnosis by physical signs tends to be unsatisfactory in these patients. For this reason frequent laboratory examinations are essential and have the same indications as in the usual types of severe disease. Of especial value, however, in this condition are the following: A complete blood picture and urinalysis should be done twice each week. With such care warning may be had to treat anemia with transfusions and pyemia may be detected early. With protracted vomiting and undue asthenia an icteus index determination would give evidence of gross liver damage and possibly provides an indication for active administration of glucose intravenously. With the normal metabolism disordered by such factors as vomiting, diarrhea and edema, the acid-base equillibrium may be unduly altered. Accordingly in the presence of dyspnea, restlessness, nausea, continued vomiting, the carbon dioxide combining power of the plasma should be determined.

TREATMENT

The routine treatment is as follows: Give the patient a starch bath once daily (½ pound of corn starch to 30 gallons of water) at 80 to 95 degrees temperature for 10 minutes. Place the nude patient on a sheet dusted with pulverized corn starch. A large wire frame extending from the neck to the feet should be placed on the bed and covered with a sheet, blankets and a rubber sheet. An electric light heats the tent. This arrangement keeps the patient's sweat glands active and the corn starch absorbs some of the moisture. The sheets must fall snugly to the patient's neck and shoulders. The mattress sheet should be drawn and held taut at all times. If the tub bath is too exhausting two sponge baths daily are to be substituted for the patient.

Following the method outlined by Drs. Dennie and McBride, of Kansas City, with some modifications in dosage, the patient is given intravenously one gram (15 grain) of freshly dissolved sodium thiosulphate in 10 cc. of sterile water once or twice daily, depending on the accessibility of the veins and severity of toxemia. Four grams (60 grains) in six ounces of water is given every six hours by mouth. Six to eight glasses of orangeade or lemonade containing two teaspoonfuls of sugar each are given during each 24 hours. The liquid intake from

these sources is about 60 ounces or 1800 cc. This should be brought up to 3000 cc. by liquid and a low protein diet. The nurse must be directed to see that the patient receives the above amount, as this type of patient has little desire for liquids or food. A total intake and output chart should be maintained.

The eyes, mouth and nose are cleaned twice daily. Castor oil is applied to the eyes, vaseline to the nose and lips; the ear canals and drums are examined twice daily. No salves, oils or lotions are applied to the patient, as it has been our observation that patients often react unfavorably after the application of oils or salves. Mild diarrhea is controlled by castor oil in laxative doses and paregoric. The diarrhea in some instances is accentuated by the effect of the sodium thiosulphate.

The intravenous use of sodium thiosulphate is usually discontinued after 6-10 doses. The per orum doses are continued until the patient has convalesced. Following this 2 grams (30 grains) should be taken twice daily every other week for six months by patients who have had a severe reaction. A duodenal drip of saline or glucose, a glucose infusion or a blood transfusion may be the means of saving a seemingly hopelessly ill patient. I know of at least ten patients who appeared to be moribund who have these aids to thank for their lives today.

DISCUSSION

Dr. Allan Eustis (New Orleans): Dr. Van Studdiford mentioned sweating of these patients under a tent and the importance of tucking in the covering around the tent. I wish to report an unusual experience which occurred only a few weeks ago, when a patient on the verge of uremia was being sweated under a tent in which there were eight electric light bulbs. I had cautioned the nurse to place several blankets over the tent and to tuck the blankets well around the base of the tent. After one hour the patient's temperature rose from 98½ to 104½, but fell to 99 in the course of another hour after the heat was turned off. On turning the lights on again the body temperature of the patient again rose to 104° in the course of an hour, although he was sweating profusely, but the temperature dropped when the heat was turned off. At a loss to account for the unusual phenomena I consulted Dr. Polmer, who stated that it was due to the air in the tent becoming supersaturated with moisture and, while there was profuse perspiration there was no evaporation from the patient's surface. This was subsequently avoided by having the nurse occasionally raise the blanket and renew the air under the tent. So, I wish to caution against the use of too snug a tent.

COMPRESSION FRACTURES OF THE VERTEBRAE*

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NEW ORLEANS

On account of the increasing frequency of accidents in which the spinal column is injured, a great amount of attention is being centered on the treatment of the resulting fractures. By far the greatest number of these fractures fall in the group of compression fractures of the vertebral bodies.

The automobile is the chief offender in producing this type of injury. As the result of a collision, the body is thrown forcibly forward in a whiplike manner, thus producing the compression of the vertebral body by hyperflexion. Falls from a height, landing in a sitting position, also cause this sudden hyperflexion of the spine. In addition, a heavy weight falling across the shoulders, forcing the spine forward, may also be the cause. In fact, any condition that causes a sharp, sudden hyperflexion of the spine may produce the lesion.

The most common sites of involvement are at the junctions of a fixed and movable segment of the spine. The first lumbar vertebra is by far the most commonly affected, with the twelfth thoracic a close second. The cervical segment of the spine is rarely the site of a pure compression fracture.

The mechanism of the fracture is readily understandable. The articular processes are the axes of motion of the spinal segments. If the spine is flexed, the vertebral bodies are approximated, and the intervertebral discs are compressed. If the flexion force is excessive, the compression of the discs will reach a maximal point, and the full force will then be exerted on one or more of the vertebral bodies, with a resultant collapse of the body. If the full force is not expended, the vertebral arch will be involved, or a dislocation will result. Thus we see that every degree of injury to the vertebra may be seen, but by far the most common

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type is simply a compression fracture of the body. Cord injury may be present, but it is relatively infrequent.

The typical lesion as seen in a lateral skiagraph of the spine is a wedge-shaped deformity of the vertebral body. The spongy portion of the body is compressed, and there are numerous fracture lines extending through the body involving the superior and inferior epiphyseal plates. The intervertebral discs adjacent to the involved body are forced as plugs into the fracture lines in the epiphyseal plates, thus preventing hemorrhage. The anterior longitudinal ligament is relaxed over the affected vertebra. Greig (1) has had the opportunity to study a case that had died seven months after receiving a compression fracture of the first lumbar body. Death was due to a malignancy not affecting the spine. The deformity had not been reduced, and the fracture lines extending through the upper and lower epiphyseal plates were as sharply delineated as if only recently incurred. No attempt at repair was demonstrable in these fractures. Around the periphery of the body new bone formation had taken place, and directly beneath the anterior longitudinal ligament was the site of maximum bone growth. His findings would clearly indicate the necessity for reduction of the deformity in these cases. When correction is obtained, pressure effects are removed from the body, hemorrhage takes place into the fracture lines, and bone repair progresses in a normal manner. This failure of repair in unreduced cases can easily explain the progressive deformity that often occurs.

The symptoms produced are variable. There is usually pain referrable to the affected area, muscle spasm, weakness, limitation of motion, and deformity. A variable degree of shock is usually noted. The symptoms may be of such a mild character that the patient does not seek recumbency, merely complaining of pain in the back. It is in this type of case that errors in diagnosis are frequent. Several authors refer to a fairly common symptom, that is abdominal distention directly following the injury (Barnard, Tibbetts). This has been my experience, both following the injury, and after the corrective manipulation. The deformity is variable, being more marked in the upper lumbar region. It is in the form of a kyphos. Neurological signs are not common, except in cases with associated dislocations or damage to the neural arch.

Diagnosis is confirmed by the roentgenogram. The lateral view reveals a variable degree of wedging of one or more vertebral bodies. In this connection it is of paramount importance that good views are obtained. A poor film may entirely fail to reveal a fracture. Barnard advises the use of a tube with a fine focal spot centered over the affected vertebra, and also the use of a Bucky diaphragm. The roentgenogram should be of sufficient clarity so that fractures of the neural arch may be ruled out.

Prognosis is good in properly treated cases. The fracture heals slowly and sufficient support should be given over a prolonged period of time so that union will be firm enough to prevent recurrence of deformity. A period of six months should be ample for this to occur. In untreated cases a progressive deformity may occur, and in certain of these cases complete anesthesia and paralysis of the lower extremities may result. In others a persistently painful back will be the outcome.

Prior to the method of reduction advocated by Davis, treatment consisted of simple application of a plaster jacket, or by recumbency on a bent Bradford frame. The results were indifferent as to correction of the vertebral deformity. Since the advent of Davis' method, marked improvement has been accomplished in the end-results of these cases. This method consists of applying traction to the feet by means of an overhead frame with the body prone, until the lower extremities and pelvis are clear of the table. This throws the spine into marked hyperextension. Firm pressure is then made over the site of fracture until the normal alignment of the spine has been reestablished. A posterior and an anterior shell is then applied. Davis reports excellent results with this method, and his period of disability averaged about 14 weeks.

Several modifications of this method have been developed, but all are based on the principles set forth by Davis. These take into cognizance: (1) the strength of the strong anterior longitudinal ligament; (2) the fulcrum action of the intervertebral articulations; (3)

the firm attachment of the intervertebral discs, and (4) the density and resistance of the lateral masses. With the body suspended prone, excessive hyperextension is prevented by the anterior longitudinal ligament, the resistance of the lateral masses, and possible impingement of the spinous processes on one another. The anterior longitudinal ligament acts as a sling. When the spine is forced into hyperextension the intervertebral joints take up the greatest strain, and each joint acts as a fulcrum of a lever, the arms of which are the portions of the vertebrae above and below the respective sets of joints which lie anterior to the joints. In a normal spine this action would put the anterior longitudinal ligament under tension throughout its entire extent. If a vertebral body is the site of a compression fracture, that portion of the longitudinal ligament just anterior to it is merely crumpled but not torn. This ligament is very firmly attached to the intervertebral discs which are in turn densely adherent to the epiphyseal plates of the vertebral bodies. Now if pressure is applied directly over the site of fracture, there is a strong force applied to the epiphyseal plates of the fractured vertebra, due to the leverage action of the intervertebral joints, and finally decompression occurs.

Dunlop and Parker utilize a manipulative method in which traction and counteraction are applied to the patient by four assistants. In their original method, the patient was tossed upward and caught on a folded sheet held opposite the affected vertebra. They have since made several modifications in which the correction is under active control. They report excellent results, both as to degree of reduction and as to function.

Rogers adopts a more conservative attitude in his method. He decompresses gradually with the patient lying supine on a flexible Bradford frame. The convexity of the frame is gradually increased over a period of several days until full hyperextension has been reached. A plaster cast is then applied.

R. Watson Jones advocates immediate reduction directly following injury. He states that if this is done within a few hours after injury no anesthetic is necessary, the patient being slung between two supports, and the spine allowed to sag into hyperextension. This is followed by the application of a plaster jacket.

The method which I have been employing is a modification of the Davis' method. Dr. Paul McIlhenny has devised a sliding frame which when attached to an ordinary table may be utilized for the application of body casts with the patient in the horizontal position. It consists essentially of a long U-shaped piece of heavy pipe that slides into two larger pieces of pipe attached to the sides of the table. A detachable support holds the free end of the frame when it is pulled out from the table. There is a winch built into the frame end of the table. After a case has been studied and a decision reached to do a manipulative reduction, the patient is carried to the plaster room on a Bradford frame, and while still on the carriage an anesthetic is administered. The frame is then tilted so that the patient is rolled off onto his face on the table, with his feet toward the frame end. Traction boots are then fastened to the feet, and a rope is fastened to one of the boots and carried over the far end of the frame. It is then carried back to the windlass beneath the table, back to the far end of the table, and then to the other traction boot. By cranking the windlass the patient is then drawn out onto the frame until he is supported on the table merely by his arms, which are held over his head by one or two assistants. This allows the spine to sag into hyperextension while traction and countertraction is being applied. Then, using the flat of the hand over the kyphos firm pressure is directed downward until the kyphos has been felt to entirely disappear. With the patient still in this position a plaster cast is applied. The cast should be well molded about the pelvis, and should come up anteriorily to the upper end of the sternum. The patient is then lifted onto the table and turned on his back, with pillows in the lumbar hollow. A large opening is made over the upper abdomen, and the patient returned to his bed.

Close attention should be paid to relieve any abdominal distention that may develop. Frequent flushes, and similar measures to those used after an abdominal operation, are indicated. The patient may be allowed to leave the hospital on the third day, after a check-up r-

genogram has been made. The cast is allowed to remain on for from 8 to 10 weeks, and following this a Taylor back brace fitted. Support shoud be used for a total period of approximately six months.

I have used this method in four cases and have been able to secure practically full correction of the deformity in all. One of the cases was manipulated 20 days after the injury, and in this case perfect reduction was obtained. The cases suitable for this method are those in which there is no damage to the neural arch, or in which no serious neurological symptoms are present.

A passive attitude in regard to these cases is decidedly unjustified, as reduction of fresh fractures of the vertebral bodies is possible without inflicting the patient with any serious additional risk. Failure to give adequate treatment may cause permanent invalidism with its associated economic loss in a patient who otherwise could look forward to a life of unrestrained activity.

DISCUSSION

Dr. E. J. Hatch (New Orleans): The doctor has given us a very interesting paper on the treatment of spinal fractures and I simply want to add my plea and strengthen the importance of early diagnosis and immediate treatment of these fractures. They are cured by proper treatment just as easily as a fracture in any other part of the body.

ACUTE INFECTION OF MAXILLARY SINUS OR ANTRUM OF HIGHMORE*

GEORGE W. BOUNDS, M. D.
MERIDIAN, MISS.

The maxillary antrum is located in the maxilla bone of the face. This sinus is likened unto a pyramid with the lateral wall of the nose forming the base, the apex being at the junction of the malar bone with the superior maxillary. This would give us three sides; superior, anterior, posterior and base. These sides or walls constitute the limitations of the sinus proper, so the boundaries of the maxillary sinus would be: above, by the orbital plate of the superior maxillary; anteriorly, by the canine fossa; posteriorly, by the pterygomaxillary fossa. The base, as has already been stated is formed by those constituents which enter into the formation of the lateral nasal walls; viz; maxillary process of the inferior turbinate, portion of palate bone, uncinate process, lamella of ethmoidal bulla, and the pons membranacea.

The size and capacity of the sinus depends, as in other accessory sinuses, largely on the amount of bone reabsorption which has occurred, although the sex and age of the individual, of course, exercise no little influence; naturally one would find larger sinuses in the male than in the female, or in the aged rather than the young. Dimensions of an average maxillary sinus would be, height 3.5 cm. (or 1½ in.); breadth 2.5 cm. (1 in.); depth 3.2 cm. (1½in.). Capacity may be about 10 c.c. to 12 c.c. in the female and 16 c.c. to 18 c.c. in the male.

The most important wall from the point of view of the rhinologist is the nasal, and for two reasons: first, because it contains the sole opening into the sinus and is the first to show pathological changes when the sinus is affected; second, it is the thinnest, and presents the easiest mode of entering the cavity either for diagnostic or therapeutic purposes.

The normal ostium to the antrum is located under the middle turbinate bone, in the anterior superior portion of the sinus, at the junction of the superior and internal walls.

Lining of Antrum: The mucous membrane lining of the maxillary sinus consists of three layers; ciliated epithelial, tunica proper, and periosteal. The two latter, however, are so intimately connected that to all intents and purposes they form one. The glandular supply is very meager, being confined mostly to the region of the ostium. The mucous membrane is prone to edematous swelling on slight irritation.

The antrum is more diseased than it's fellow sinuses, because it has one more osteological factor, the intimate relations of the floor to the roots of the teeth. It will be remembered the sinuses are usually affected through their ostia, sometimes through the circulatory system. The maxillary sinus not only presents this to a marked degree on account of the extremely unfavorable situation of the ostium, but in addi-

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tion certain affections of the aveolus are prone to affect this cavity. Idiopathic (rarely) arising in the sinus itself; direct extension from nasal mucosa; colds, flu, infectious diseases; from aveolus (contiguity-blood and bone); through contamination from overlying sinuses; foreign bodies; traumatism; osteomylitis; tuberculosis; syphilis; malignant tumors; chronic or latent empyema; acute abscessed teeth.

Direct extension from nasal mucosa.—This is the most frequent course of maxillary sinusitis. Whenever general inflammation of the Schneiderian membrane occurs, the mucosa of the sinuses is affected. In all cases of acute coryza there is bound to be more or less inflammation of the maxillary sinus.

Infectious disease.—The most common is influenza. The precise reason why this disease shows such a marked predisposition to affect the sinuses as well as the mode of infection for the present remains unanswered.

Indirect courses. — Extension may occur through the nasal wall. This probably occurs through traumatism of the pars membrane, followed by subsequent infection removing ethmoid, tamponing nose, intro-surgical procedures.

SYMPTOMS

Pain in the canine fossa, soreness of the teeth, pain under the orbit and, in the top and back of the head are the most frequent symptoms. Occasionally the patient will tell you that it seems as though the eye ball will burst out on bending over. The patient will have a rise in temperature and complain of chills and fullness of the side of the face affected. You will obtain a history of the patient having a cold. The pain may begin before the patient recovers from the cold. Also, they may have a bloody discharge from the nose, or it may be thick mucus or pus. The patient will complain of an odor from the nose. There will be pus in the nose, most of the time under the middle turbinate.

DIAGNOSIS

Tenderness on pressure over canine fossa and also under the orbit usually is present. Most of the time we find there will be a shadow over affected antrum on transillumination.

TREATMENT

Diet: Give plenty of green vegetables and fruits. Eliminate meat and sweets to a great extent.

Medication: Keep bowels moving freely with laxatives, such as milk of magnesia. Or, if constipated, give small doses of salts. Try to have patient spray nose with camphor menthol oil spray. This seems to keep down congested condition of mucous membrane and patient is able to breathe better. Also, use ice cap to affected antrum. Warm soda solution (1/3 teaspoon to one cup of warm water), and sponging nose out with absorbent cotton every three or five hours is another treatment I find very helpful. Neo-silvol pack about once daily if patient is able to come to the office. I always try not to do any trauma to mucous membrane nor use adrenalin if it can be avoided, as I find it seems to irritate mucous membrane. After four or five days, if patient is still suffering and can't be relieved without it, I wash the antrum with phenol solution, about 20 drops to 8 ounces of sterile water. I always go through under the inferior turbinate bone by anesthetizing the antrum well. Have patient bend head forward and downward to keep solution from running down throat. Have patient rest in bed and use ice cap over the antrum. Give luminal tablet, gr. 1½, or aspirin, if patient is adult. Have them keep nose sponged with warm soda solution every three hours.

We sometimes have to irrigate antrum more than one time. If patient isn't relieved in this way I give gas, go in and remove the antrum wall under inferior turbinate bone and put in a drainage tube so the antrum can be washed out every day. I find that I get best results in treating them this way. I never resort to this method if I can give my patient relief any other way. Have obtained good results generally from my method of treatment. However, I am sure there is a great difference of opinion.

Some of my patients have gotten along without any trouble by using the ice cap and spraying the nose with the oil spray containing the camphor and menthol, giving aspirin or codeine as needed. I have had others on whom I would use the cotton tapons of neo-silvol, 10 per cent solution, phenacetin and cocaine, a.a. gr. 1 to 2 ounces of neo-silvol. I have used the suction on some patients after the fourth

or fifth day, which establishes good drainage and thereby affords great relief for patient.

Generally, I prefer using the ice cap and oil spray with warm soda water solution, by sponging the nose every three or five hours, unless more drastic means are necessary, due to various complications.

DISCUSSION

Dr. L. S. Gaudet (Natchez): I am very appreciative of the fact that Brother George has a paper before this section, especially since we are meeting in Natchez, because he is an old pal of mine. I am not going to jump on him. He has covered the anatomy of the maxillary sinuses in a very classical way.

In the treatment of acute sinus diseases, not only the antrum, but of all sinus disease, we have to be a physician and a specialist as well. I like Dr. Bounds' paper very much because he puts in it the personal equation. He gives his own method of treatment. Most of us when we read or discuss the papers we give treatments we have read out of journals, or text books, but I always like to hear a paper when the man gives us his personal experience like Dr. Bounds, and Dr. Cotten. One thing he brings out more than anything else is the fact that he has a great deal of respect for the acute mucous membrane in the nose. That is very highly important. Most of us overlook that. In the treatment of acute sinus disease we must be first of all, a physician. The longer I practice eye, ear, nose and throat, and the longer I study diseases of the eye, ear, nose and throat, the more I am prone to look to other parts of the body for many of the causative factors in disease relating to this specialty. From the standpoint of the physician, in all acute sinus disease while we have pain—we have temperature—those diseases should be treated just like we treat any other acute disease, whether pneumonia or influenza or any other acute condition. The patient above all things should be confined to bed. We get better and quicker results in all acute infections relating to eye, ear, nose and throat, when we treat patients by putting them to bed, having good and free eliminiation as Dr. Bounds has said, and putting them on plenty of liquids. He mentioned the fact that he gave plenty of vegetables and fresh fruits. I do not give many vegetables. I give plenty of fruit juices and plenty of water to dilute the toxins. In so far as the local treatment is concerned, there is not very much to do in any acute stage of sinus disease. We have a congestion of the passage ways, which are often times aggravated by septal deflections and in these acute conditions some shrinking of the nasal membrane to restore ventilation and drainage helps a good deal. Adrenalin sometimes irritates, sometimes it does not, it depends on the patient, but the paramount principle of treating all acute sinuses in my estimation is rest and elimination, and treating the symptoms as they occur.

I enjoyed Dr. Bounds' paper very much and am glad to have him in Natchez with us.

Dr. Geo. E. Adkins (Jackson): In discussing this paper let me concede the correctness of the descriptive anatomy as given in a practical way, however, we know that there might be some deviation from the routine contour and formation, such as, partition walls, etc., that would well be kept in mind.

I should also like to concede the causative factor as laid down with the exception of placing the common cold second to influenza. I think it has been my experience that the common cold is the most productive of acute infections of the antrum. This perhaps shows up this way because common colds are so much more frequent than influenza.

I think the symptomatology and diagnostic signs are well enumerated in the paper but I should like to call attention to the importance of remaining in the dark room from three to eight minutes or even longer before attempting transillumination. Many errors occur in interpretations owing to the improper fixing of the eyes.

I should also like to add the roentgen ray to the diagnostic field and whilst we know the roentgen ray is of little value with the young child, we also know that transillumination might be difficult or even impossible, but for the adult there is unquestionable information to be gained. We might mention the lipiodol injection but I am not much of an advocate for I find its presence in the sinus usually masks as much or more than it reveals.

Treatment, I should think, depends on the stages of the disease. For the first few hours, when there is probably no pus in the cavity, one might content himself by shrinking the Schneiderian membrane and the applying of local antiseptics with the addition of heat or cold, but I find that most of these cases have been suffering from two to ten days before they present themselves for treatment and in this case, especially if an adult, I think an immediate Douglas puncture is indicated with an irrigation, or whatever might be preferred by the surgeon, after which I advocate rasping the nasoantrum opening out well. A gauze drain may be left in for a few hours but personally I have not derived much from the tube drainage.

Of course there is an after treatment to carry out and subsequent irrigations may be necessary but as long as each case becomes a law unto itself I think this phase could not be well discussed.

Dr. C. C. Buchanan (Hattiesburg): I would like to ask two or three questions for information. I think the paper has been wonderful and the dis-

cussions most helpful. I notice he fails to mention any of the ephedrine preparations. It seems to me these preparations are very helpful in the treatment of acute conditions. I would like to know the best method of using the rasp especially in the early stages. The second question is—does he believe the case that shows an early dark shadow is ever completely relieved without irrigation? The third question is—what has been his experience with the new preparation metycaine that is supposed to take the place of cocaine.

Dr. Bounds (closing): I appreciate the discussion of this paper very much. In regard to Dr. Gaudet's remarks about fluids or diet, I think it is very evident that with these colds, a patient's appetite is more ravenous than at any other time, and most of them want meats and sweets entirely. When I said vegetables, I meant green vegetables, incidently eliminating, to a great extent, meats and carbohydrates.

I agree partially with Dr. Adkins, but I do find sometimes, that when irrigation is done, it is difficult to obtain the consent of the patient to make these large openings.

Concerning roentgen ray, I realize that it is a great help, but probably the people at Jackson are richer than they are in Meridian, and they can afford roentgen ray examination. I think it a most valuable asset to confirm a diagnosis.

In regard to Dr. Buchanan's question about the use of adrenalin, I have found that you do get relief in a short while, but in an hour or less time, I have more congestion, swelling, and blocking of the nose than before. With the phenacetine and cocaine, I really get better results.

I have had only one occasion to use the new preparation spoken of. A few weeks ago, young Dr. Stingley received an eye injury and we were using cocaine and atropine. After discussing this medicine, he was in favor of using it. It seemed to give him a little relief, but his injury was so severe that we had to keep the eye bandaged, and resort to morphine every four hours. Despite this, I feel reasonably sure that it could be of considerable use in some particular cases. I thank you.

GENITO-URINARY TUBERCULOSIS*

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Tuberculosis of the genito-urinary tract has long been recognized and has been found to occur in about five per cent of all tuberculous subjects. Like lupus vulgaris and laryngeal tuberculosis, it is probably always part of a generalized tuberculous process and secondary to a focus in some other part of the body. Almost seventy per cent of cases coming for treatment give a definite history of a tuberculous lesion elsewhere, or show clinical evidence of an active focus at the time of examination—usually in the lungs, bones or joints.

In discussing this subject it is probably best to consider the urinary and genital systems separately. The kidneys, ureters, bladder and urethra comprising the urinary tract, and the testicles, epididymes, spermatic cords, seminal vesicles and prostate the genital tract. Infection of the female genitals is so very rare that it will not be considered in this discussion.

Except in miliary tuberculosis, the primary focus in the urinary tract starts out as a one-sided kidney affair. It is most common between the ages of twenty and forty and found only rarely in the two extremes of life. When found in children, however, it is usually quite active, runs a stubborn course and terminates fatally in a large percentage of cases. Males and females are affected about alike.

The first symptoms of urinary tuberculosis are usually directed to the bladder. Frequency and burning are the most common and may be slight in the beginning, last for a short period of time and disappear entirely only to recur in a little worse and more prolonged attack. Frequency of urination later becomes painful, still later urgency and difficulty are added and in advanced cases an almost constant dribbling may be found. Hematuria is an initial symptom in about ten per cent of cases; it nearly always occurs later and at times may be quite profuse. I wish to emphasize the fact that kidney symptoms are usually late, and occur in the form of localized renal discomfort and colic. It should be our purpose to diagnose these cases before the advanced stages are reached. The disease is insidious in its onset, limited at first but progressive by nature and spreads to other parts of the tract. During the limited period the disease may be cured but is fatal in the vast majority of cases when

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allowed to progress, placing rather grave responsibility upon the physician or surgeon who is called upon to solve the problem of protracted urinary symptoms.

After a history and physical examination has been obtained, presenting a symptom complex suggesting tuberculosis, there are certain simple diagnostic measures to be applied. The first step is a careful examination of the urine. The pus is uniformly mixed and presents an almost characteristic delicate cloudiness. The specimen should be centrifugalized at high speed for a long time. The sediment is then placed on a slide, stained according to standard methods and subjected to a careful microscopic study. It is at this point that the examiner should have both the time and determination to sit and look until the slide has been given the careful study that is usually required to definitely cinch the diagnosis. Pus without organisms is strong presumptive evidence of the presence of tuberculosis and if acid-fast bacilli are not found, guinea pigs should be inoculated with the urine. Plain roentgenograms of the urinary tract should now be made. A large irregular kidney shadow is sometimes found and sometimes shadows may be cast by calcified areas in the cortex. On the other hand plain roentgenograms may be entirely normal. Cystoscopy is the next step and the bladder usually presents a diffuse spotty appearance, often more pronounced about the ureteric orifice, corresponding to the affected kidney. Later ulceration occurs. Pus may be seen coming from the affected side, occasionally in ribbon-like bands. Differential dye tests are now made not so much to determine the amount of damage that has been done to the bad kidney but to prove the ability of the good kidney to support normal life after its fellow has been removed. The function of the affected kidney is often found to be little changed. Both ureters are catheterized and specimens collected and subjected to both microscopic and guinea pig study. Bilateral pyelograms are now done, either intravenous or retrograde. The intravenous route is probably preferable because of the fact that miliary tuberculosis has been reported following the retrograde route. Braasch, however, states that in reviewing the hundreds of cases at the Mayo Clinic, he failed to find a single case in which harm was done by doing a retrograde pyelogram. The pyelograms usually show an irregular moth-eaten effect.

The diagnosis of renal tuberculosis is usually established at this point. A careful search of the entire genito-urinary tract has been made in order to locate all lesions, as well as a general study to uncover active foci and to measure the patient's general ability to stand the treatment to be outlined.

The ureter is never the seat of primary tuberculosis. It becomes involved secondardy to an infected kidney. The walls become thickened, the mucous membrane ulcerated and later, there are scar formation and stricture. Usually it heals after the kidney is removed and rarely becomes the seat of active independent tuberculosis. Young, in 112 cases, found it necessary to remove the ureter along with the kidney only three times, and in only one of the remaining 109 did he find it necessary to remove it afterwards. In cases of long standing the ureter sometimes closes off entirely shutting off an active kidney from the rest of the urinary tract, producing a so-called autonephrectomy.

The bladder, like the ureter, is infected from an involved kidney above, and has probably never been attacked primarily, although a few questionable cases appear in the literature from time to time. The mucous membrane becomes thickened and ulcerated, usually more in the base and around the ureteric orifice of the infected kidney. There is a reduction in the bladder capacity. In long standing cases the wall becomes thickened and some of the normal musculature replaced by scar tissue. This involvement may extend to the lower end of the ureters, producing constriction and subsequent hydronephrosis of the remaining kidney. The bladder usually gets well after the

primary focus is removed but irrigations and fulguration of ulcerated areas do much towards affecting a cure. Artificial sunlight is now being used with some success.

The urethra is rarely attacked. Pathologically it is a chronic urethritis with ulceration and stricture formation. It constitutes a serious complication to genito-urinary tuberculosis, as intervention of some sort is always demanded. The strictures always recur after whatever efforts are made to dilate them. Periurethral abscesses are not uncommon and are followed by persistent urinary fistulae.

The treatment of urinary tuberculosis is removal of the affected kidney and is usually regarded as one of the most satisfactory operations in surgery. Nephrectomy is contraindicated in bilateral renal tuberculosis, unless there is great trouble and much pain on one side with only slight involvement on the other. According to the literature, however, these cases are usually quite disappointing. Nephrectomy is also contraindicated in advanced pulmonary or other active lesions that place the odds too much against operative intervention. Obviously, we have all seen cases that, for one reason or another, do not come to surgery but statistics show that about sixty-five per cent of non-operative cases die within five years, while sixty per cent of operative cases are cured. Ten years without an outbreak is the time required before a patient is pronounced well. In discussing treatment of urinary tuberculosis proper consideration must be given to the importance of general medical care. Rest, diet, tuberculin, fresh air and sunlight are all valuable adjuncts to surgery. In cases that can afford to do so much may be gained by sending them to a proper climate for tuberculous subjects.

Tuberculosis of the genital tract does not indicate an infection of the genital tract alone but, like urinary tuberculosis, is probably just another outbreak of an infection which may have been smoldering for years. Genital tuberculosis usually attacks the epididymis first. It starts in the tail or lower portion where the vas originates and from this point spreads slowly to the testicle, vas, seminal vesicle and prostate, as well as to the same structures on the opposite side.

Pain is noted in about sixty per cent of cases, is usually mild and often trifling. It is usually located in the diseased organ, but may radiate to the groin and lumbar region. It may be exaggerated locally by pressure from a hydrocele. Tenderness is usually not great, as compared with that which occurs in gonorrheal epididymitis. The scrotum may become adherent, abscesses may form and rupture, producing a fistula which is the most common ear-mark of tuberculous epididymitis.

The testicle becomes infected secondary to the epididymis, most likely in the early months; on the other hand, it may resist infection for a long time. The vas, like the testicle, becomes infected from the primary focus in the epididymis but other than pain in the groin and lumbar region it causes no particular disturbance but may be palpated as a thickened cord. The middle third usually shows less trouble than the other portions. Following infection of the prostate and vesicle, there is more or less urinary disturbance. Frequency, urgency and difficulty are attributed to irritation around the bladder neck; the bladder itself may become infected and the urine show pus, blood and tubercle bacilli.

The diagnosis of tuberculous epididymitis is usually based upon induration, enlargement, nodularity, especially at the lower pole, little or no pain or tenderness, thickening of the epididymal end of the vas and involvement of the corresponding vesicle and side of the prostate. If the disease is chronic bilateral which usually occurs within the first six months, and especially if fistulae are present, there should be little doubt as to the true nature of the trouble.

The surgical treatment of genital tuberculosis in early cases is removal of the epididymis and one-half or more of the vas. The infection of the seminal vesicle and prostate is thought to disappear after the primary focus is removed. There is a strong ten-

dency to involvement of the opposite side and the incidence of this may be reduced by cutting the good vas at the time epididymectomy is performed. The testicles are left alone unless definitely diseased. There is usually little or no effect upon the sex function; even cases in which both testicles were removed have been known to perform well for as long as ten years. The medical treatment for genital tuberculosis is the same as that for any other tuberculous process.

RECOGNITION AND TREATMENT OF PRIMARY SYPHILITIC LESIONS

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Apparently we have not gone far afield, nor have we chosen rare material as subject matter; but when we consider that while accumulating these 90 cases of primary syphilitic lesions, there were 49,297 Wassermann tests run, that 8,264 were positive, and that there were 40,000 patient visits to the Salvarsan clinic, and that during the past 100 years until 2 years ago, apparently no certificate of clinical cure has been issued from this institution for this tremendously wide-spread malady, this relationship approaches at least the unique.

Osler once remarked that the story of the search for the cause of syphilis "Is a tale to make the judicious grieve." In 1905 Lassar stated that 125 causes of syphilis had been established during the previous twenty-five years.

It has been only in the past fifty years that real strides in the study of syphilis have been made. This is partly due to the influence of a misconception of the eminent English physiologist, John Hunter, whose prestige at that time caused the acceptance of his erroneous theory that there were three kinds of venereal infection, viz: gonorrhea, chancre and lues venerea, and all were the result of some poisoning. The only difference being the nature of surface upon which the virus acted. However, in the latter part of the 19th century, Fournier clearly showed that lues and chancroid were two distinct affections. It remained for the inspired syphilologist, Eric Hoffman and his coworker, a protozoologist, Fritz Schaudin in 1905, to demonstrate the presence of spirilla in the serous exudate of chancre. They first called it spirochoeta pallida, but later changed it to treponema pallida. Stokes calls it spirochoeta pallida, and textbooks vary, so one may choose his own nomenclature.

As yet we know practically nothing about the life cycle of this unusual organism, but if we are to believe McDonald, what we see is only a male gamete of a protozoan parasite. However, this is not generally accepted, for the T. pallida can be cultured for hundreds of generations and only this one form can be found. If the treponema is merely a stage in the life cycle, our present conception of syphilis, especially regarding paternal transmission of the disease to the offspring, will be revolutionized.

The histological study of the chancre in its various stages reveals to us practically the entire pathology of syphilis. The chancre represents the portal of entry of the treponema pallida and is the most common of serious external genital lesions. After an incubation period of 10-40 days there is clinical manifestation of a lesion. The virulence of the organism determines the rapidity of growth, along with the factors of tissue resistance, site and mode of inoculation, the degree of secondary pyogenic infection and the intensity of the local reaction. The shotty induration is due to local edema followed by lymphocytic infiltration. The superficial necrosis is caused by obliterative endarteritis.

It is our contention, without tending to discount the value of clinical observation and experience, that the diagnosis of early syphilis is a laboratory and not a clinical procedure. The ideal conditions for darkfield examination would be a clean lesion 1-2 weeks old, but unfortunately we have seen so many that are 1-6 months old, grossly contaminated with pyogenic, Ducre and yeasts and even various spirillaform invaders. It is this element of contamination that clouds the clinical picture and makes the value of the darkfield examination paramount. This same secondary infection is the greatest obstacle to the laboratory man, for if he accepts a negative darkfield in the presence of this contamination he disregards the ob-

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servation of Nogouchi and other eminent workers in that the treponema pallida does not thrive in the presence of pyogenic invaders. To overcome this, we use hot, saline soaks and repeated examinations. Many of our patients have returned a dozen times before a definite diagnosis was established.

The usual technic for darkfield examination was adhered to, and a few of the many spiral forms that offered differential difficulties were S. refingens, S. vincenti, S. microdentin, while others were S. macrodentium, T. cuniculi, T. calligyrum (smegma), T. genitalis.

The treponema pallida has definite distinctive characteristics that are only discerned after repeated darkfield studies. It has a peculiar brilliancy and impresses one as being the aristocrat of its class in that it retains its rigidity and regularity, whether it be in motion or at rest. Stokes[1] compares it to the rigidity of a curled steel shaving with the brilliancy of a lamp filament. To me the most impressive thing is the ghost-like appearance as it drifts into the field of vision. Its intrinsic movements are the slowest of all the spirochoetes with which it is likely to be confused. "It keeps its shape" and never becomes distorted, nor does it collapse as do many others which incidentally are more translucent. To quote an eminent pathologist, Treponema pallida is the "organism with waxed mustaches par excellence."

We have studied 90 cases which represent all the positive primary lesions diagnosed by darkfield examination, in the hospital and clinic over a period of 9 months, including genital and extra-genital lesions.

As a rule the uncomplicated chancre is eroded rather than ulcerated. In the typical exposed lesion a serous exudate is present and often a thin grey yellow crust is evident. It has a smooth base and a regular smooth border. In many cases a hemorrhagic marginal line is evident. As the local reaction progresses, healing and fibrosis set in, the epidermis rapidly covers over and a healed area remains. The lymphocytic infiltration disappears slowly and all clinical evidence of chancre may have disappeared within a relatively short time. In lax or flaccid tissue the uncomplicated chancre seldom leaves residual scarring.

We find the most common location in the male to be the sulcus just behind the corona, particularly the dorsum. In the female the labia minora. The size varying from ½ cm. to 3 cm. in diameter, color preference is pink to light red. Tenderness is present in a little over half of the cases and when present is usually of little degree, or when marked, almost always there is secondary infection present in the form of other spironema. Though induration is called a classical sign we find it in only 22.9 per cent.

A most useful sign is regional lymphadenopathy and though usually considered as bilateral we found it so only in 22 per cent, and usually said to be non-tender, we rated it tender in 18.8 per cent which approximates our mixed infection of 17.7 per cent. We found the length of the treponema pallida to average 9.1 micra, and the number of spirals as 8.8.

We endeavored to learn the effect of systemic anti-syphilitis treatment on the darkfield as well as its effect upon the Wassermann reaction. We used for this bismuth potassium tartrate in butyn, insoluble form, injected intramuscularly in doses 2 cc. each, (1cc=0.1 gm. K.Bi. Tartrate) and of neoarsphenamine intravenously in doses of 0.3 gm.

The scope of this paper does not allow us to consider the therapeutic actions, but we will present our observations in that the bismuth preparation produced a negative darkfield in 22 cases within an average of 3½ days, but was still positive in 4 cases from 1-8 days later. With neoarsphenamine, 10 cases were darkfield negative within 24 hours, and one case was still positive after 24 hours, and one darkfield examination had changed from 3+ to 1+ within 24 hours. This comparison is considerably in favor of the neoarsphenamine. In regard to the Wassermann check: 16 cases never became positive, (we think because of the early active treatment); 6 cases became negative after an average of four bismuth injections. This agrees with Kolle[2], who maintains that the action of bismuth is more inhibitory than curative.

SUMMARY

1. We have tried to show that through darkfield examination alone can the true diagnosis be made in primary syphilitic lesions.

2. That this early diagnosis is all impor-

tant—thus allowing treatment sometimes weeks before the Wassermann is positive.

3. That this early treatment will often abort further manifestations of the disease, either clinical or serological.

4. That the primary lesion will become darkfield negative, on an average, within 24 hours following adequate neoarsphenamine therapy or on an average of 3½ days following adequate bismuth therapy.

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THE EFFECT OF GONODOKINETIC PRINCIPLE OF THE PITUITARY GLAND AND PREGNANCY URINE ON CONCEPTION IN THE IMMATURE ALBINO RAT

(A Preliminary Report)

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Haberlandt[1] produced sterilization in rabbits and guinea pigs by ovarian transplants and placental extracts. Similar work was done by Fellner[2], Gostimirovic[3], Mahnert[4], Migleavacca[5], Mandelstamm and Tscharkowsky[6], Haupstein[7, 8] and Neumann[9, 10] using various female sex hormones. Gostimirovic and Kramer[11] were not able to duplicate Haberlandt's results by transplanting ovaries from pregnant mice to non-pregnant mice. Kraft[12] found that immature rats produced larger litters than normal after the administration of anterior pituitary hormone. Katzman[13] observed that large doses of the urinary hormone inhibited estrus, and luteinization of the ovaries in immature rats, but that reproduction was not impaired. Kelly[14] injected mature guinea pigs with a urinary hormone and the juice from beef pituitary when spermatozoa were found in the vagina, and found that it did not prevent conception. Engle[15] injected pregnancy urine into immature mice and produced atresia of follicles and prevented ovulation by transforming follicle cysts into corpora lutea. Evans and Simpson[16], Levin et al[17] and Kelly[14] produced abortions by injecting anterior pituitary hormone.

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In the present series of experiments female albino rats 30 days old were injected twice a day for three days. The first group was injected with varying amounts of a proprietary gonad-stimulating principle made from pregnancy urine. The second group received a gonad-stimulating substance precipitated from whole acetone dried sheep pituitary glands. The hormone was extracted by the method of Wallen-Lawrence and Van Dyke[18]. Females from the same litter were used to assay the hormones and for microscopic studies of the ovaries and uteri.

Vaginal smears were made every day after the injections were concluded, and it was found that the animals were usually in a state of estrus during the first five to seven days, then an irregular cycle occurred, varying from 7 to 10 days when the vaginal smear showed a dioestral cell content or a mixed type of cornified and nucleated epithelium and leukocytes.

When the injected females were 100 days old they were mated repeatedly, if necessary, and vaginal smears made each day for detection of spermatozoa; however, some animals became pregnant when no spermatozoa had been found. This can be accounted for by the short time the spermatozoa live in the vagina and the interval between vaginal smears.

The diet was well balanced, attention being given to all the vitamins, especially vitamin "E." The average normal fertility in the colony of adult rats was litters of eight.

In the first group, (Table No. 1) which was injected with a pregnancy urine hormone, the animals that received small doses (6 rat units) of the hormone had large litters. Of the group that received 30 rat units seven did not conceive, and the remaining one delivered an abnormal dead fetus. Of the ten rats that received 90 rat units one had a litter of two, two a litter of five, one a litter of nine and six did not conceive.

The second group (Table II) that was injected with pituitary gland hormone showed almost identical results. They were injected when 30 days old mated repeatedly with another male, if necessary, after 100 days. Of the two that received 6 rat units one had a litter of eight and the other a litter of nine. The four which received 30 rat units did not conceive. Of

the five rats that received 90 rat units, two did not conceive, one had a litter of 4, one a litter of five and another a litter of ten. Of five rats which received 120 rat units, three did not conceive, one had a litter of two and the last had a litter of six.

The microscopic picture of the ovaries of rats injected with pregnancy urine hormone was very similar to that of rats injected with pituitary gland extract, possibly more follicle cysts in the latter group. There was a gradual enlargement of the ovaries in direct ratio to the amount of hormone injected. All the experimental animals were injected twice a day for three days, and the controls were killed five days after the injections were started. At this time the ovaries contained a preponderance of corpora lutea, a moderate number of follicle cysts, several corpora hemorrhagica and an occasional primordial follicle.

Table I.

Pregnancy Urine Hormone

Injected animals	Total rat units	Size litter
1	6	9
1	6	10
7	30	0
1	30	1
6	90	0
1	90	2
2	90	5
1	90	9

Table II.

Pituitary Gland Hormone

Injected animals	Total rat units	Size litter
1	6	8
1	6	9
4	30	0
2	90	0
1	90	4
1	90	5
1	90	10
3	120	0
1	120	2
1	120	6

COMMENT

The administration of small amounts of pituitary gland hormone and pregnancy urine hormone to immature rats produced larger litters. Large and medium doses apparently inhibited conception.

Microscopically it was found that ovaries from rats receiving small doses of the hormones were stimulated to produce many primordial follicles and follicle cysts.

The ovaries from rats which had received large and medium doses were almost entirely replaced by luetin tissue. This undoubtedly reduced the fertility of the animals either by blocking ovulation, changing the ovum in some way so that its development was retarded, or by stimulating most of the primordial ova to develop very rapidly over a very short period of time.

The two hormones from pregnancy urine and the pituitary gland do not cause absolute sterility, but inhibit fertility. This was proven clinically by the fact that only one-third of the animals became pregnant.

SUMMARY

1. White female immature rats were injected with two separate hormones and mated when 100 days of age.

2. Twenty received varying amounts (6 to 90 rat units) of a pregnancy urine hormone.

3. Sixteen received from 6 to 120 rat units of a pituitary gland hormone.

4. The results were almost similar in both series.

5. The four that received small amounts (6 rat units) had normal size litters.

6. Two of the animals that received 90 rat units had normal size litters.

7. Eight animals that received 30 to 120 rat units had small litters.

8. Twenty-two animals that received 30 to 120 rat units did not conceive.

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RETROCECAL APPENDICES*

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Reviewing the current literature available, I was rather surprised to find so little having been written on so common a subject, yet since 1915, few contributions have been made to the American Literature dealing with appendiceal conditions, despite a gradually rising death rate.

It was in 1886 that Fitz, of Boston, originated the term "appendicitis" and published his first article on the subject. In 1887 Morton, of Philadelphia is reported to have deliberately performed the first appendectomy in the United States. Two years later McBurney contributed his paper describing the point of maximum tenderness which now bears his name.

*Read before the Section on Surgery at the Sixty-seventh Annual Session of the Mississippi State Medical Association, Natchez, May 8, 1934.

Long before Fitz published his article, isolated reports of appendiceal involvement had been made. In 1827 Melier described five cases and called attention to the fact if appendicitis was a rare condition it was because it was not being recognized. These early reports were either neglected or overlooked for a number of years.

It is quite true that the appendix may be found in any of a great number of positions in relation to the cecum, but there are many reasons why it should occupy a retrocecal position rather than the anterior position as suggested by Treves. The final position of the appendix is greatly influenced by the many changes in position and shape of the cecum during development and growth. The first evidence of the cecum and appendix is the formation of the cecal diverticulum and the primary differentation between the small and large intestine, which takes place following the torsion of the great intestinal loop. At this stage the cecal diverticulum occupies a position in the right quadrant, in close relationship to the liver. This position is relatively low down due to the large size of the liver which at this stage occupies the greater portion of the abdominal cavity and it can be said that no ascending colon exists. Due more to the elongation of the body wall and the more rapid growth of neighboring organs the liver and cecal diverticulum separate; the intestine distal to the cecum elongates and the ascending colon comes into existence. Because of this elongation the cecal diverticulum undergoes an actual descent, from the region of the right iliac crest into the right iliac fossa. The vermiform appendix is not yet demarcated, but later, by a more rapid growth of the proximal end and a relative construction of the distal end, the appendix itself comes into existence.

By this growth the appendiceal junction is not only displaced leftward and downward, but also backward. This is due to the actual descent into the iliac fossa over a tilting floor directing the axis of the cecum downward and inward. There is a more rapid growth of the right side of the cecum because of the greater pressure from the fecal content of the ileum and also from the erect posture of later life until the greater part of the left cecum disappears. These factors ultimately determine the final position of the appendix in the adult. It is

quite obvious that with such a mobile organ during its period of development, and the many changes in position which it assumes, the appendix may be found in any number of different positions.

C. P. G. Wakeley of England in examining 10,000 subjects found the appendix to occupy an anterior position in 1 per cent of the cases, pelvic, 31 per cent, subcecal 2.26 per cent, retrocecal, 65.28 per cent, and states further that contrary to geenral teaching of older writers the retrocecal position is the most common in the general experience of surgeons, pathologists, and anatomists of England.

Gladstone and Wakeley[1] observed the position of the appendix in 3,000 cases and found 69.2 per cent postcecal and retrocolic.

Morison in 468 cases of appendicitis states that 99 per cent were retrocecal.

Herbert Busher[2] reports 30 per cent retrocecal in 200 cases.

The retrocecal appendix may lie free in a post-cecal position or be bound down in a posterior position by a short mesentery or in contact with the cecum due to adhesions or be entirely retro-peritoneal.

Epigastric pain with nausea and vomiting is much less frequent and often absent in retrocecal appendices as the superior mesenteric plexus does not receive the impulses from local irritation of the peritoneum. The pain is primarily centered in the right lower quadrant coming on suddenly and may be most severe in the flanks. It may also be referred to the right inguinal region. These patients are much more comfortable with the right thigh flexed, due to the close proximity to the psoas muscle. Some suggest (Brumo Cohen) irritation from the psoas muscle may play a part in retrocecal appendicitis. Any effort to extend the right leg increases pain. Palpation of the anterior abdominal wall reveals only slight rigidity, if at all with a minimum of pain.

This I feel is a misleading finding as the appendix may be acutely inflamed and the patient complains of very little pain when pressure is made over the appendiceal region. The greatest point of tenderness is in the right loin, below the area associated with kidney disorders. Blood or pus may be found in the urine because of the close approximation of the retrocecal appendix and the right ureter.

The most frequent question to arise is the differentiation between retrocecal appendix and pyelitis, yet when we consider that acute pyelitis generally begins with a chill and high fever, both of which are uncommon in appendicitis and also the difference in the subjective and objective symptoms there is little room for speculation. I feel if there is a conclusive uncertainty it is much better to operate.

Leukocytosis in our experience is generally higher than the objective symptoms would indicate. The count varies with the severity of the involvement.

CASE REPORTS

Case 1. S. T., aged 21 years, a salesman, was seen on June 27, 1933, complaining of constipation, loss of appetite and a dull aching pain in lower abdomen. He gave a history of having had recurrent attacks of "indigestion" and pain low down in right abdomen, made worse by standing or walking, which had been present since early youth. Upon physical examination he complained of pain on pressure low down in right loin. White blood count 10,000. At operation a typical retrocecal appendix was found. Since operation, constipatin and pain have ceased and he has no dyspepsia.

Case 2. Miss L. F., aged 30 years, was seen on October 16, 1933 complaining of a recurrent attack of kidney colic from which she had suffered at intervals for the past five years. Medical treatment had given no relief so she had been advised to be cystoscoped, for which she came to the Columbus Hospital. There was definite pain low down in right quadrant but much worse in right loin; Temperature normal; only few pus cells and no red blood cells in urine. White blood cells were 14,000. At operation an acutely inflamed retrocecal appendix, with numerous adhesions to surrounding tissues was found. Patient has been symptom free since operation.

Because of its posterior position and short mesentery generalized peritonitis is less frequent than in ordinary appendicitis. The infection spreads upward along the colon to the kidney or may cause a subphrenic abscess. It may also form an abscess along the psoas muscle.

In somewhat over 150 cases of appendicitis we have found the appendix to either be free or bound down in the retrocecal position in over 65 per cent of the cases.

Several types of operation have been suggested for the removal of retrocecal appendix, any one of which may fit the individual case.

Our experience has been that the appendix is in a higher position than in an anterior appendix and the incision varies with the height of maximum tenderness.

Willey Myer has suggested the mapping out of the middle between McBurney's point and the anterior superior ilias spine by placing the thumb and third finger on these two points and the fore-finger on the center of an imaginary line connecting the umbillicus and the anterior superior iliac spine and from there make an incision upward through the skin toward the kidney 2½-3 inches long. After dividing the fascia of the external oblique muscle and its muscular substance in the same direction, the fibers of the internal oblique are cut across, transverse fascia and parietal peritonem appear.

In those cases of retrocecal appendix with a short or no mesentery it may be necessary to remove the appendix by first ligating it at the base and removing it backward. Possible contamination must be watched for in this procedure.

When the retrocecal appendix has no mesentery the appendix must be dissected free by blunt dissection separating the appendix from its bed at short intervals, clamping these bands before they are cut, as in this type the appendiceal artery may be found at any point along the course of attachment. It is rather embarrassing to cut the artery and have it retract under the peritoneal coat of the intestine. Raw surfaces of the appendiceal bed fall posteriorly.

Recognition and early removal of this type of appendix will win everlasting gratitude from the patient.

May I leave with you the words of Ashhurst who states that "to delay operation in appendicitis is to gamble with death".

DISCUSSION

Dr. A. Street (Vicksburg): I do not think that we have the subject of appendicitis called to our attention too often. All of us feel rather chagrined when we lose a patient with appendicitis. If you lose them from a hopeless carcinoma or something like that and know that you have done all you could, it is not so bad, but in appendicitis you feel there was something left off somewhere or other and that if management had been right from the start, if the patient had conducted himself right and took himself to the doctor, he probably should not have died. As to the question of diagnosis, the position of the appendix does influence the ease of diagnosis without any doubt. A retrocecal position —a low pelvic position—modifies symptoms to some extent. The essayist has called attention to just how the symptoms may be modified. However, we make the diagnosis in a great majority of cases, typical or atypical. I think the blood count is of considerable help in those cases with vague symptoms. When careful observation and mature judgment indicate operation, do it promptly and good results will follow.

Dr. Wolford (closing): I have nothing more to add other than during your next appendectomy, when you expose the appendix, observe its position and in a large majority of cases you will find it to occupy a postcecal position.

SOME IRON-CONTAINING FOODS*

OSCAR W. BETHEA, M. D.
NEW ORLEANS

While primary anemia is comparatively rare, secondary anemia of some degree is almost the rule. The resultant sum total of impaired efficiency and sense of well-being is beyond computation. The value of a diet rich in iron is recognized both in prophylaxis and in treatment. We know today that such a diet not only should be a part of the therapy in every case but also the routine in every home.

Instead of leaving the construction of such a diet sheet to the vagaries of memory in the limited time available during a consultation I have carefully prepared my list, had it multigraphed, and can place one in the hands of the patient without loss of time or apology for its incompleteness. Some of these items, as milk, are low in iron percentage but may be taken in such amounts as to make them a practical source of supply.

Some Iron-Containing Foods

Breads and cereals—Whole wheat bread, rye bread, whole wheat cereal, oatmeal.

Fruit, raw—Apples, peaches, apricots, bananas, raisins.

Fruit, Cooked—Prunes, peaches, apricots, apples.

Nuts—Almonds, filberts, English walnuts.

Vegetables—Lettuce, cabbage, spinach, carrots, beans, peas, lentils.

Meats—Liver, steak, beef roast.

Oysters.

Eggs.

Milk, buttermilk.

Cane molasses.

*From the Department of Medicine, Tulane University.

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VACCINATION AGAINST ACUTE ANTERIOR POLIOMYELITIS

Two recent articles have been published which deserve comment. The first of these by Kolmer et al reports on a continuation of the work that has been already published in part. The second is by Cowie whose contribution describes the protection given monkeys against virulent poliomyelitis virus.

Both of these two authors employ somewhat the same technic in securing the material to be used for vaccinating man or monkey. The attenuated virus is obtained in much the same manner as the virus of rabies. Kolmer makes up a 4 per cent suspension of poliomyelitis monkey spinal cord in a sterile 1 per cent solution of sodium ricinolate, whereas Cowie follows the Pasteur vaccination technic using a 5 per cent suspension of emulsified cord tissue preserved in 0.7 per cent phenol. The results of Cowie show that it is possible to protect the monkey injected with virulent poliomyelitis virus intracerebrally in two out of three instances. Subsequent reinoculation did not protect these monkeys who showed at autopsy typical brain and cord changes. Kolmer vaccinated 25 children. His anti-body studies showed that in the great majority of instances there was a marked increase in anti-body formation. Anti-body protection occurred in 21, or 84 per cent, of these children who showed no effect from the vaccination. The duration of immunity following vaccination is not definitely known but he states that in the vaccinated monkeys it lasts for more than two years.

The importance of these researches hardly needs to be accentuated. There is no disease more dreaded than anterior poliomyelitis and if it should obtain epidemic proportions as it did in California in 1934, apparently with the vaccination that has independently been shown by two scientific workers to be efficacious, the exposed children can be protected.

MEDICAL ECONOMICS

At the time that this is written the action of the called meeting of the House of Delegates of the American Medical Association is not known. Just what it will accomplish and what stand will be taken by the representatives of the parent organization of organized medicine is a debatable problem. Under any circumstances it is quite safe to

Kolmer, J. A. Klugh, G. F. and Rule, A. M.: A successful Method for Vaccination against Acute Anterior Poliomyelitis, J. A. M. A., 104:456, Feb. 9, 1935.

say that the House of Delegates will definitely not endorse any of the proposed schemes for health insurance bills or insurance bills that have been proposed by organizations not connected directly with the medical profession.

The American Association for Social Security has prepared a bill which has so much to condemn it that it hardly seems possible that the medical profession would be willing to cooperate or to work under this plan as it is proposed. The Bureau of Medical Economics of the American Medical Association has analyzed this bill critically. There is a tremendous amount of major and minor criticism which can be made of this proposed bill. These have been outlined in the Bulletin of the American Medical Association which has been sent to the members of the organization. It might be well to stress a few of the main objectionable features of this bill, as per chance some of the members of the association may have neglected to read it, together with the critical comments; others may not have even seen it.

The most glaring fault is that this bill will apply to 95 per cent of non-agricultural working population of the country . This automatically will throw out of the doctors' practice a large group of people who are honorably willing to meet their professional obligations, and can do so. Just think for a minute how many people there are who do not make as much as sixty dollars a week, the maximum income of the insured, and yet who are able to employ the physician they like and wish to have, and who are thoroughly solvent. A tremendous portion of the population would become victims of state medicine if this bill as arranged would be enacted.

The bill, moreover, provides that the greater part of the burden of insurance would be placed on those whose incomes are greater than forty dollars a week. This would open up a further demand upon those who can now meet their obligations. It is unfair and unjust to make this group of people pay and help to pay the cost of the insurance of the lower wage earning group.

Extremely unfair to the medical profession is the set up for the administration of this bill. As it is now revised, the board of administration would not give adequate nor fair representation to the medical profession. When all is said and done the physician is the foundation upon which the whole scheme is erected and it only seems just that they should have an extremely important representation in the administration of the funds and of the medical service. Overwhelmingly inequitable is the arrangement by which the administrating authority, composed largely of lay individuals, will have the power of judging of the type of service that is being rendered. The power of discipline which is everywhere exercised by a medical association is removed from the profession and given to a lay body which does not have the requisite professional information or judgment to decide such questions.

It will be impossible to go ahead and analyze in detail this bill as has been done by the American Medical Association, and to point out innumerable unjust and unfair features. It would pay the thinking physician, the man who is interested in the future of the medical profession, to go over this bill if he has not done so and to find out for himself how obnoxious it would be to the practitioner, now independent and self-controlled, to work under a scheme which proposes state medicine in its most objectionable form.

SPECIAL SESSION OF THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

A special called session of the House of Delegates was held in Chicago, February 15 and 16, in order to discuss the question of compulsory sickness insurance. This meeting was of extreme importance, so much so that we are printing in full the report of the Reference Committee, which was unanimously approved by the House of Delegates. The members of the House

who supported this report stressed most forcibly the necessity of every medical organization in the country, parish or county, district or state, getting back of the House of Delegates and supporting with all their heart and soul the action taken by these representatives of organized medicine. It would seem that it would hardly be necessary to emphasize the importance of such concerted action by the entire medical profession. It is only by such action that the invidious discriminating Epstein Bill or similar bills can be defeated. We would urge every thinking physician to read this report throughout. The report follows:

February 15 and 16, 1935.

"Your reference committee, believing that regimentation of the medical profession and lay control of medical practice will be fatal to medical progress and inevitably lower the quality of medical service now available to the American people, condemns unreservedly all propaganda, legislation or political manipulation leading to these ends.

"Your reference committee has given careful consideration to the record by the Board of Trustees of the previous actions of this House of Delegates concerning sickness insurance and organized medical care and to the account of the measures taken by the Board of Trustees and the officials of the Association to present this point of view to the government and to the people.

"The American Medical Association, embracing in its membership some 100,000 of the physicians of the United States, is by far the largest medical organization in this country. The House of Delegates would point out that the American Medical Association is the only medical organization open to all reputable physicians and established on truly democratic principles, and that this House of Delegates, as constituted, is the only body truly representative of the medical profession.

"The House of Delegates commends the Board of Trustees and the officers of the Association for their efforts in presenting correctly, maintaining and promoting the policies and principles, heretofore established by this body.

"The primary consideration of the physicians constituting the American Medical Association are the welfare of the people, the preservation of their health and their care in sickness, the advancement of medical science, the improvement of medical care, and the provision of adequate medical service to all the people. These physicians are the only body in the United States qualified by experience and training to guide and suitably control plans for the provision of medical care. The fact that the quality of medical srvice to the people of the United States today is better than that of any other country in the world is evidence of the extent to which the American medical profession has fulfilled its obligations.

"The House of Delegates of the American Medical Association reaffirms its opposition to all forms of compulsory sickness insurance whether administered by the Federal government, the governments of the individual states or by any individual industry, community or similar body. It reaffirms, also, its encouragement to local medical organizations to establish plans for the provision of adequate medical service for all of the people, adjusted to present economic conditions, by voluntary budgeting to meet the costs of illness.

"The medical profession has given of its utmost to the American people, not only in this but in every previous emergency. It has never required compulsion but has always volunteered its services in anticipation of their need.

"The Committee on Economic Security, appointed by the President of the United States, presented in a preliminary report to Congress on January 17 eleven principles which that Committee considered fundamental to a proposed plan of compulsory health insurance. The House of Delegates is glad to rcognize that some of the fundamental considerations for an adequate, reliable and safe medical service established by the medical profession through years of experience in medical practice are found by the

Committee to be essential to its own plans.

"However, so many inconsistencies and incompatabilities are apparent in the report of the President's Committee on Economic Security thus far presented that many more facts and details are necessary for a proper consideration.

"The House of Delegates recognizes the necessity under conditions of emergency for federal aid in meeting basic needs of the indigent; it deprecates, however, any provision whereby federal subsidies for medical services are administered and controlled by a lay bureau. While the desirability of adequate medical service for crippled children and for the preservation of child and material health is beyond question, the House of Delegates deplores and protests those sections of the Wagner Bill which place in the Children's Bureau of the Department of Labor the responsibility for the administration of funds for these purposes.

"The House of Delegates condemns as pernicious that section of the Wagner Bill which creates a social insurance board without specification of the character of its personnel to administer functions essentially medical in character and demanding technical knowledge not available to those without medical training.

"The so-called Epstein Bill, proposed by the American Association for Social Security now being promoted with propaganda in the individual states, is a vicious, deceptive, dangerous and demoralizing measure. An analysis of this proposed law has been published by the American Medical Associatvion. It introduces such hazardous principles as multiple taxation, inordinate costs, extravagant administration and an inevitable trend toward social and financial bankruptcy.

"The committee has studied this matter from a broad standpoint, considering many plans submitted by the Bureau of Medical Economics as well as those conveyed in resolutions from the floor of the House of Delegates. It reiterates the fact that there is no model plan which is a cure-all for the social ills any more than there is a panacea for the physical ills that affect mankind. There are now more than 150 plans for medical service undergoing study and trial in various communities in the United States. Your Bureau of Medical Economics has studied these plans and is now ready and willing to advise medical societies in the creation and operation of such plans. The plans developed by the Bureau of Medical Economics will serve the people of the community in the prevention of disease, the maintenance of health and with curative care in illness. They must at the same time meet apparent economic factors and protect the public welfare by safeguarding to the medical profession the functions of control of medical standards and the continued advancement of medical educational requirements. They must not destroy that initiative which is vital to the highest type of medical service.

"In the establishment of all such plans, county medical societies must be guided by the ten fundamental principles adopted by this House of Delegates at the annual session in June 1934. The House of Delegates would again emphasize particularly the necessity for separate provision for hospital facilities and the physician's services. Payment for medical service, whether by prepayment plans, installment purchase or so-called voluntary hospital insurance plans must hold, as absolutly distinct, remuneration for hospital care on the one hand and the individual, personal, scientific ministrations of the physician on the other.

"Your Reference Committee suggests that the Board of Trustees request the Bureau of Medical Economics to study further the plans now existing and such as may develop, with special reference to the way in which they meet the needs of their communities, to the costs of operation, to the quality of service rendered, the effects of such service on the medical profession, the applicability to rural, village, urban and industrial population, and to develop for presentation at the meeting of the American Medical Association in June model skele-

ton plans adaptd to the needs of populations of various types."

(Signed)

Dr. Harry H. Wilson, Chairman, California.
Dr. Warren F. Draper, Virginia.
Dr. E. F. Cody, Massachusetts.
Dr. E. H. Carey, Texas.
Dr. N. B. Van Etten, New York.
Dr. F. S. Crockett, Indiana.
Dr. W. F. Braasch, Minnesota.

HOSPITAL STAFF TRANSACTIONS

CHARITY HOSPITAL MEDICAL STAFF

The monthly meeting of the Medical Staff of Charity Hospital was held February 12, 1935, one week prior to the regular meeting date to expedite special program; Dr. Willard R. Wirth, Chairman, presiding.

The scientific program was devoted to roentgen ray studies of aneurysms occurring in the thorax; presented by Dr. Amedee Granger. In the presentation of these cases Dr. Granger gave a short resume of the history, and in several instances, the necropsy findings of each case. He pointed out the inadequacy of the postero-anterior view alone in arriving at a correct diagnosis; and conclusively demonstrated the differences in each case by transverse and oblique views—oftimes comparing with the normal. The demonstration was enthusiastically received by a large attendance of the staff.

Morell W. Miller, M. D.,
Secretary.

TOURO INFIRMARY

The regular meeting of the Medical Staff of Touro Infirmary was held Wednesday, February 13, 1935. Dr. Charles Bloom presented a case of rupture of the lung occurring in a 6½ year old white male. The cause of this rupture of the lung resulting in marked subcutaneous emphysema on the right side was not determined. There had been no trauma. Dr. Bloom then discussed a case of acute hemorrhagic nephritis complicating mastoiditis. These cases were discussed by Drs. Kearney, Lemann, Strange, Von Meysenbug, Gage, Pitkin, Matas, and Eshleman.

Dr. Sidney Simon discussed the early recognition of carcinoma of the rectum and presented one case report. The case report was of a 49-year-old white female in which the diagnosis of carcinoma was made on palpation of the rectum and proctoscopic examination. The roentgen ray examinations had been negative. In the proctoscopic examination a piece of tissue was removed with forceps and pathological examination showed it to be an adeno-carcinoma. The patient will be operated upon shortly for the condition. This presentation was discussed by Drs. Cohn, Levine, Browne, Jules Davidson, and Samuels.

There then followed reports of cases of unusual interest with autopsy findings. A case of rupture of the left ventricle following coronary occlusion, and a case of general carcinomatosis probably arising primarily in the right kidney were reported and discussed.

Willard R. Wirth, M. D.

VICKSBURG SANITARIUM STAFF MEETING

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on February 11 with thirteen members of the staff and six guests present. After a quail supper (birds furnished by Dr. J. A. K. Birchett, Jr.) and business of the staff, a report of vital statistics from the Warren County Health Department was presented by Dr. F. Michael Smith, Director.

Special case reports:

1. Acute Intestinal Obstruction Produced by Gallstone.—Dr. G. M. Street.

2. Tumor of Testicle Associated With Hydrocele.—Dr. J. A. K. Birchett, Jr

CANCER CLINIC.—Folliculoma of Ovary.—Dr. J. A. K. Birchett, Jr.

Selected radiographic studies were presented and discussed as follows: Spontaneous fracture of humerus (metastatic carcinoma); subdeltoid bursitis (two cases); fracture-dislocation of carpal scaphoid; osteomyelitis of os pubis; foreign body in throat (safety pin); cholelithiasis (two cases); diverticula of colon.

Three minute reports of the literature of the month:

Dr. G. M. Street.—Catgut Allergy.

Dr. L. S. Lippincott.—Lymphogranuloma Inguinale.

Dr. J. A. K. Burchett, Jr.—Action of Ergot on Human Puerperal Uterus.

Dr. L. J. Clark.—Autopsy Findings in Heart Block; Liver Cirrhosis Anemia.

Dr. G. C. Jarratt.—Typhoid-Paratyphoid Therapy in the Treatment of Idiopathic Epilepsy.

Dr. R. A. Street, Jr.—Fetal Mortality in Relation to the Toxemias of Pregnancy; Lipiodal Injections in Sterility.

Dr. H. H. Johnston.—Cancer of Larynx.

Dr. W. E. Johnston.—Congenital Dislocation of Hip.

The next meeting of the staff will be held Monday, March 11. A supper will be served at 6:30 P. M.

Leon S. Lippincott,
Secretary.

Abstract.—Tumor of Testicle Associated With Hydrocele.—Dr. J. A. K. Birchett, Jr.

Patient.—White male, aged 76 years. Chief Complaint: Pain in left groin and swelling of left scrotal region. History of Present Illness: For past eight years has had collection of fluid on left side of scrotum which has been relieved by frequent tapping; lately fluid has reaccumulated rapidly and there has been pain especially when he walks or stands for any length of time. Past History: General health excellent, no serious illnesses; cardiovascular, respiratory and digestive history negative. Family History: No cancer, no tuberculosis. Physical Exàmination: Tall thin white male in apparent good health; looks to be younger than age given. Examination essentially negative except for enormous increase in size of scrotum, especially left side which reaches half way to knee. The mass is very tight, apparently contains fluid, extends up into left inguinal region and when patient is lying down gives impression of hernia. Transillumination of scrotum suggests large fluid accumulation and needle introduced at lower end of mass enabled us to withdraw 800 to 900 cc. of clear fluid typical of hydrocele. After the fluid was withdrawn there was still a mass the size of a large orange, very hard and painful to touch. This was diagnosed as tumor of left testicle, possibly malignant and surgery was advised. The patient readily agreed to have mass removed as the repeated tappings of hydrocele and the weight and pain in the testicle were getting past endurance. Laboratory: Urine, slightest possible trace of albumin; sugar 0.5 per cent; indican, slight trace; numerous calcium oxalate crystals, rare leukocytes. Wassermann, Kline and Young, and Kahn tests, negative. Blood, hemoglobin 87 per cent, color index 0.88, erythrocytes 4,510,000, reticulocytes 3 per cent, platelets, few; leukocytes 14,500, small lymphocytes 41 per cent, large lymphocytes 4 per cent, polymorphs., mature forms 37 per cent, band forms 18 per cent. No malaria found. Procedure: Under local infiltration anesthesia and block of the cord high in the inguinal region the testicle was easily removed by dissection and ligation of the cord with double ligation of the vessels separately from the vas and cremasteric muscle. There were several encysted areas of fluid along the cord and a large one, size of small orange, in the inguinal ring itself which on external examination gave the impression of hernia. However the internal and external rings were negative for any protrusion from the abdominal cavity and the canal was not opened. Drain was placed at lower end of the wound and patient was discharged on sixth postoperative day. Pathological Diagnosis: Hydrocele of tunica vaginalis of cord; hydrocele of tunica vaginalis of testicle; orchitis acute and chronic; epididymitis, acute and chronic; chronic inflammatory of spermatic cord.

Comment.—The rapid growth and bad prognosis in testicular tumors demand an early removal when seen. Most malignancies of the testicle are seen between ages of 20 and 30 years, it should always be borne in mind with or without a history of trauma or infection. Any hard tender mass of the testicle should be of a suspicious character. Many times as in this case the testicular mass may be masked by a large hydrocele or hematocele. An important step in diagnosis of testicular tumors as to their malignancy has been brought out since the discovery of the sex hormone derived from the anterior pituitary or prolan "A" found in the urine. In certain tumor growths the presence of prolan "A" not only determines the type of tumor, but the response that this malignancy will make to radium or roentgen ray treatment. In radio sensitive growths the prolan "A" in urine will be markedly decreased after deep therapy to affected organ. Usually these tumors that are readily affected are not malignant. Those tumors that are not radio sensitive are of a malignant nature. The prolan "A" in urine is not reduced and surgical removal is indicated if there is no evidence of metastasis. If a malignancy has metastasized or if there is recurrence after surgery the prolan "A" is increased in the urine and this may be watched to note a recurrence of disease.

In this case the possibility of this mass being malignant prompted an early surgical removal. Even though the tissue removed was not malignant it could have been a later development and certainly its removal has relieved a very uncomfortable and painful condition.

J. T. NIX CLINIC
NEW ORLEANS

At a meeting held in February, Doctor A. E. Fossier presented the following paper.

STATISTICAL STUDY OF VISCEROPTOSIS

In this country, especially in the cities, it seems that the population is fairly well divided between individuals of the hypersthenic or so-called normal type and the asthenic or splanchnoptotics.

It is not meant by this that the large number of individuals of the asthenic type are all sufferers from the visceroptotic symptom complex, but rather that they belong to that group who are potential victims of a condition which not only is very distressing but taxes to the utmost the therapeutic skill of the physician. The doctor whose practice consists principally of ambulatory and chronic cases will find a large proportion of visceroptotics in his clientage, and the extent of his success with these patients will depend greatly on his ability to diagnose and treat this condition.

The relative frequency of the habitus enteroptoticus has been tabulated by the following authorities:

Max Einhorn has stated that fully 25 per cent of the women having digestive disturbances were visceroptotics and that many observers claimed that at least 35 per cent are so affected. He found that only 5 per cent to 6 per cent of the men were so affected.

Mathieu observed a movable kidney in 85 out of 306 women, or about 27 per cent.

Linder reported one case of movable kidney in every 5 or 6 women.

Kuttner wrote that the examination of 727 women revealed 93 cases with movable kidneys, or approximately 13 per cent.

Harris and Chapman reported that out of a total of 1000 patients, 532 males and 468 females, they found 551 cases of gastroptosis, or 55 per cent of which 226 were men, or 42 per cent, and 325 were women, or 76 per cent.

Frank Smithies in a group of 600 males and females, equally divided, found 36 men and 163 women with visceroptosis, making a total of 33 per cent, 12 per cent of the former and 54 per cent of the latter.

Swaun found in 340 sanitarium cases examined radiologically that 88 per cent presented evidences of ptosis of the abdominal organs.

Glenard gave the following interesting figures: Nephroptosis in 13 per cent of the total cases; 2.3 per cent in men and 22 per cent in women, or 52 of the 2,013 males and 485 of 2,202 females.

Conran claimed that the general incidence of gastroptosis was 22 per cent or 150 cases out of a possible 884 examinations.

Levy and Kenton stated that out of a total of 1600 patients examined for stomach trouble they found 579 gastroptotics or about 35 per cent. Their examinations were confirmed by radiology.

Burnam in a study of the John Hopkins Hospital records concludes that one of every five women were gastroptotics whilst in men it was only one out of fifty.

Morrison in 1500 fluoroscopic examinations found 57.7 per cent of the females and 42.3 per cent of the males with ptosis of the stomach; and that in 18 per cent that organ was about an inch or two above the crest of the ileum, 45 per cent was an inch below the crest of the ileum and 38 per cent was low in the true pelvis.

John Bryant in a post mortem study made on 290 of all ages, of whom 177 were males and 113 females, showed that some degree of visceroptosis was found in 48 per cent of all cases examined and that the ptosis was extreme in 10.2 per cent of the males and 19.7 per cent of the females.

The author in a group of 630 patients found 410 splanchnoptotics or a total incidence of 65 per cent. He found visceroptosis in 178 men of a group of 324, or 55 per cent; and 232 in 306 women or approximately 75 per cent.

Whilst his figures may seem to be proportionately large compared to those of the authorities quoted above, yet each case of splanchnoptosis presented well marked and well defined symptoms of this habitus. Cases presenting the least diagnostic doubt were tabulated as non-visceroptotics.

These statistics accentuate the fact that a large number of the chronic cases consulting a physician and perhaps a surgeon are sufferers of a ptotical displacement of the thoracic and abdominal organs.

The discrepancy in the figures quoted above may be explained by the authors classifying their cases either as gastroptosis or nephroptosis. Frequently a patient having a movable kidney may not show a marked ptosis of the stomach and a marked gastroptosis may be present without an accompanying nephroptosis. Such being the case it is evident that their proportion of their cases must be somewhat lower than of those who consider splanchnoptosis as an entity and make their diagnosis not from the viewpoint only of a drop stomach or kidney but as a condition based on a particular bodily conformation manifesting the ear marks of the habitus enteroptoticus with gastrointestinal, circulatory and nervous symptoms.

The following statistical study of the 630 cases compiled by the author may be of interest:

	Total No. of cases	Men	Women
Splanchnoptosis	410-65 %	178-55 %	232-75 %
Right Nephroptosis	86-21 %	22- 7 %	64-27.8%
Left Nephroptosis	2 per cent	2- 7 %	
Gastroptosis	138-33.6%	82-46 %	56-27 %
Cardioptosis	102-24.8%	14-19 %	68-29 %
Hepatoptosis	8- 1.9%	6- 3.4%	2- .8%
Diastasis Recti Abdominis	70-17 %	38-21 %	32-13.8%

The relative frequency of gastroptosis from the figures of the authors quoted above is 36.2 per cent, or 1478 cases of a total of 4048 individuals examined. For nephroptosis it is 15.6 per cent or 915 cases of drop kidneys of a total of 5848 patients The author found the percentage of gastroptosis to be 33.6 per cent, and of nephroptosis 21 per cent.

The most consistent symptom of visceroptosis is constipation. Some authorities have reported that they found it in nearly three quarters of their cases. Conran in a series of 100 cases found constipation in 67 of these patients. The author has observed it in 46 per cent of the visceroptotics and that the percentage was approximately the same in the two sexes, 47 percent in the male and 45.5 per cent in the female.

Inman has found that 36 per cent of his cases were sufferers from constipation. Harris and Chapman reported that of 551 gastroptotics 339 were victims of constipation.

Hepatoptosis is not uncommonly found in the hyposthenics. Frequently the hyposthenics manifest a slight ptosis of the liver, due to the drop of

the abdominal organs and the loss of intra-abdominal pressure with concommitant increase of intrathoracic pressure, with resulting flattening of the dome of the diaphragm, which causes the liver to rotate forward and downward. The liver is slightly palpable in approximately one quarter of these cases. But pronounced hepatoptosis, that is, a dropping of the liver in the epigastrium or in the pelvis, is a comparative rarity and is found as a rule secondary to trauma or to a shock, even in the markedly visceroptotics. Conran has observed such cases in 4 per cent and the author in 1.9 per cent, or 3.4 per cent in the male and .88 in the female.

Levy and Cantor in a group of 100 sthenics and hyposthenics have found 22 drop hearts. The author diagnosed cardioptosis in 25 per cent with a sex incidence of 19 per cent in the males and 29 per cent in the females. Recently the roentgen rays have uncovered a larger proportion of drop hearts.

Apparently the spleen is well supported for it is extremely rare to find a ptosis of that organ.

THE OSCAR ALLEN TUMOR CLINIC
CHARITY HOSPITAL
NEW ORLEANS

The scientific meeting of February was called by Doctor J. T. Nix, Director. The essayist was Doctor John H. Connell, who presented the following paper.

PROGNOSIS IN BREAST CARCINOMA

The determination of the end result in mammary cancer is probably more difficult than in most other forms of malignant disease. There probably is no subject in surgery or pathology that has been more diligently studied and one in which there is such diverse opinion. The most optimistic figures for breast malignancies in general come from the Memorial Hospital Clinic in New York where the five-year cases average 40.6 per cent of all operable cases.

In any given case, how can we begin to estimate the probable expectancy of life? There are, of course, many factors to be taken into consideration, not a small part of which is the mode and extent of treatment employed. The individual judgment and skill of the therapeutist handling the cases is of utmost importance, but with ideal surgery, roentgen ray and radium provided, what further guides do we possess?

We must consider each case from the clinical standpoint of age and development of growth and from the pathologist's interpretation as to histologic variants.

The age of the individual patient is important only in so far as we already know that malignancy in the young and especially in a physiologically acting organ proceeds at a much more rapid rate than in an older individual and in one whose breast is in a period of rest.

All statistics seem to indicate that the one most potent factor is the extent of the local disease, more especially as to whether the axillary lymph nodes have been affected. This factor is usually a clinical observation but should always be substantiated by a microscopic examination. Again quoting the Memorial Hospital statistics we find that if the growth is confined to the breast we realize a 72 per cent five-year cures. If the disease is present in the axilla our case figures drop down to 23 per cent cures.

Knowing this same element to be a prominent prognostic factor the National Radium follow-up scheme divides the breast cancer into three main groups: Grade I, axillary nodes not invaded; Grade II, axillary nodes involved, but nothing to indicate further spread of the disease; grade III, disease spreading to some tissue outside the breast other than axillary nodes. Using these criteria "Leed's Investigation" over a large series of cases shows 91 per cent five-year cures for grade I and only 15 per cent for grade III.

Why is prognosis so favorable in grade I cases and so definitely unfavorable in all others? It certainly would not seem to be invasion of the nodes themselves or removal would effect a cure. The glands merely are acting as indices to show that spread has progressed to other parts of the body.

Forty years ago Hansemann first presented the idea that a scale might be drawn up to represent the degree to which the morphology of a tumor departs from that of a mother cell from which it arises. He suggested the possibility that the grade of anaplasia might be correlated with the degree of clinical malignancy of the tumor as evidenced by its tendency to metastasis. His interesting observation received little attention until in this country in recent years histologic grading has been studied extensively.

Broder in 1920 first divided the cancers of the lip into Grades I, II, III, IV, dependent upon the percentage of cell differentiation, or anaplasticity. Since that time tumors of all organs have been graded using similar grounds and in addition analyzing the "defensive factors" of the host such as fibrosis, lymphocytosis, etc. and using it in the final index. Heuper has devised the most elaborate of all the plans which have been advanced for grading cancer. He believes that no less than twenty different histologic factors are of prognostic significance. A number of American Pathologists including Plait and Reimain have reached the conclusion that the histological characteristics of breast cancer are of little value in arriving at a correct prognosis. More recently McCarthy and especially Haagensen working on breast can-

cer have rather conclusively shown that there is some relationship between histology and longevity of life. The latter in a series of 164 cases was able purely on a histologic basis to predict those who were most liable to survive the five-year period. In his grade I malignancies there were 80 per cent survivals and his grade III (which was his most malignant) only 13 per cent were alive five years later regardless of the initial extent of the disease.

To digest and correlate all the available literature and decide upon the merits of all concerned is no little task. We have attempted to take all factors into consideration and in the cases going through the clinic have divided them into grades I, II and III dependent correspondingly upon the three factors: age of patient, 10 per cent; degree of extension, 60 per cent; and histologic appearance, 30 per cent. Our clinic has been of a too short duration to give any figures as to five-year cures but already the compilation of our statistics point favorably toward this arrangement and we believe we are arriving as close as possible to a rational way of prognosticating on cases of breast cancer.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

MARCH 1 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

MARCH 4 Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

MARCH 6 Clinico-Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

MARCH 6 Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

MARCH 8 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

MARCH 8 French Hospital Staff, 8 P. M.

MARCH 11 ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

MARCH 13 Clinico-Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

MARCH 13 Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

MARCH 13 Touro Infirmary Staff, 8 P. M.

MARCH 15 Pathological Conference, Hotel Dieu, 11 A. M. to 12 Noon.

MARCH 15 I. C. R. R. Hospital, 12 Noon

MARCH 18 Hotel Dieu Staff, 8 P. M.

MARCH 19 Charity Hospital Medical Staff, 8 P. M.

MARCH 20 Clinico-Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

MARCH 20 Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

MARCH 20 Charity Hospital Surgical Staff 8 P. M.

MARCH 21 Eye, Ear, Nose and Throat Club, 8 P. M.

MARCH 22 Pathological Conference, Hotel Dieu, 11 A. M. to 12, Noon.

MARCH 25 ORLEANS PARISH MEDICAL SOCIETY, 8 P. M.

MARCH 26 Baptist Hospital Staff, 8 P. M.

MARCH 27 Clinico-Pathological Conference, Touro Infirmary, 10:30 to 11:30 A. M.

MARCH 27 Physiology-Pharmacology Journal Club, Richardson Memorial, 4 to 6 P. M.

During the month of February, the Society held one regular scientific meeting, one special meeting and one joint Clinical Meeting with the United States Marine Hospital Staff.

The following program was presented at the regular meeting held February 11:

SYMPOSIUM ON IRRADIATION THERAPY

Physical Therapy in Subdeltoid Bursitis.
By:.....Dr. Nathan H. Polmer

Discussed by Dr. Dudley Stewart and closed by Dr. Polmer.

Roentgen Therapy in Non-malignant Conditions
By:.....Dr. J. C. Rodick

Discussed by Dr. E. R. Bowie.

Modified Coutard Technic in Irradiation Therapy.
By:.....Dr. Leon J. Menville

The special meeting of February 21 was a joint meeting of the Orleans Parish Medical Society and the New Orleans Gynecological and Obstetrical Society. Dr. Benj. P. Watson, Professor of Gynecology and Obstetrics, Columbia University, was the guest speaker, his subject being:

The Interpretation of Menstrual and Menopausal Disorders with Special Reference to the Possibilities and Limitations of Treatment.

The following program was presented at the joint Clinical Meeting of the Orleans Parish Medical Society and the United States Marine Hospital on Monday, February 25, 1935:

Leprosy.
By:.....Dr. O. E. Denney,
Medical Officer in Charge,
U. S. Marine Hospital, Carville, La.

The Treatment of Gonococcal Infections with Pyretotherapy.
By:.....Dr. R. C. Arnold

Refreshments were served following this meeting.

All committees for the arrangement of the coming meeting of the Louisiana State Medical Society have been active and from indications this should be a banner meeting.

A bulletin of the Orleans Parish Medical Society has been issued to the Membership twice a month and will be continued. This new feature has been instituted in order that the membership may be acquainted more fully with activities of the Society. It is hoped that the members will cooperate in sending news to the Secretary's office for publication in this bulletin.

Dr. Wm. Norman has been elected to Active Membership and Dr. Antonio Mayoral to Associate Membership.

The Society adopted resolutions endorsing Daylight Saving Time for New Orleans.

The following committees have been appointed by our President to serve for 1935:

JUDICIARY COMMITTEE—Dr. Emmett Irwin, Chairman; Drs. J. T. Nix, Allan Eustic, C. Grenes Cole and E. L. Zander.

SCIENTIFIC ESSAYS COMMITTEE—Dr. Jos. D'Antoni, Chairman; Drs. Chas. L. Cox, Julius Isaacson, Sidney L. Tiblier and Emmerich von Hamm.

LIBRARY COMMITTEE—Dr. Alton Ochsner, Chairman; Drs. Shirley C. Lyons, B. I. Burns, James R. Daboval and J. M. Perret.

STATE MEDICINE AND LEGISLATION COMMITTEE — Dr. L. C. Chamberlain, Chairman; Drs. Edgar Burns, Jerome E. Landry, E. L. Leckert and C. L. Peacock.

CONDOLENCE COMMITTEE—Dr. Lily L. Dismuke, Chairman; Drs. E. Z. Browne, Jos. Cohen, Lucy Hill and Walter J. Otis.

AUDITING COMMITTEE—Dr. C. A. M. Dorrestein, Chairman; Drs. David Adiger, Wm. B. Clark, P. A. Kibbe and W. A. Knolle.

HOSPITAL ABUSE COMMITTEE—Dr. A. E. Fossier, Chairman; Drs. Ernest Celli, J. B. Larose, M. O. Miller and H. Ashton Thomas.

PRESIDENT'S REPORT COMMITTEE — Dr. Maurice Couret, Chairman; Drs. H. G. Butker, Maurice J. Gelpi, J. M. Rosenthal and Susanne Schaefer.

SECRETARY'S REPORT COMMITTEE—Dr. R. M. Willoughby, Chairman; Drs. H. R. Unsworth, Wm. A. Wagner, Garland Walls and Roger Maihles.

TREASURER'S REPORT COMMITTEE—Dr. John A. Lanford, Chairman; Drs. Robert Bernhard, M. P. Boebinger, Lucien A. Fortier and C. J. Vedrenne.

LIBRARIAN'S REPORT COMMITTEE — Dr. Lloyd J. Hanckes, Chairman; Drs. T. T. Gately, W. R. Hardy, J. T. Sanders and D. M. Stewart.

AUXILIARY CONTACT COMMITTEE—Dr E. S. Hatch, Chairman; Drs. R. S. Crichlow, L. W. Alexander, Adolph Jacobs and F. E. LeJeune.

RADIO COMMITTEE—Dr. Marcy J. Lyons, Chairman; Drs. C. P. Brown, John F. Oakley, P. L. Querens and Leo J. Schoeny.

PUBLICITY COMMITTEE—Dr. T. B. Sellers, Chairman; Drs. Ruth G. Aleman; J. E. Bailey, Wilmer Baker and R. M. Penick.

PERIODIC HEALTH EXAMINATIONS COMMITTEE—Dr. Philip H. Jones, Chairman; Drs. Sims A. Chapman, J. M. Davidson, Max Green and Aldea Maher.

SPECIAL COMITTEE TO DISCUSS WAYS AND MEANS OF TAKING CARE OF PHYSICIANS TEMPORARILY IN DISTRESS—Dr. H. E. Bernadas, Chairman; Drs. Emile Bloch, E. R. Bowie, J. E. Brierre and Julian Lombard.

PRE-SCHOOL ROUND-UP COMMITTEE—Dr. J. H. Musser, Chairman; Drs. H. F. Brewster, B. J. deLaureal and R. H. Fisher.

CHILD WELFARE COMMITTEE—Dr. Philip C. DeVerges, Chairman; Drs. Walter E. Levy, Monte F. Meyer, Percy A. Phillips and E. A. Socola.

PROFESSIONAL ABUSE COMMITTEE — Dr. Arthur Caire, Jr., Chairman; Drs. John Gooch, Geo. Hauser, M. W. Miller and R. F. Sharp.

TREASURER'S REPORT

ACTUAL BOOK BALANCES 12/31/34	$ 844.86
January receipts:	$1,956.74
	$2,801.60
January expenditures:	$ 983.98
ACTUAL BOOK BALANCE 1/31/35:	$1,817.62

LIBRARIAN'S REPORT

One hundred and one books have been added to the Library during January. Of these 10 were received from the New Orleans Medical and Surgical Journal, 72 by binding, 17 by gift and 2 by purchase. A notation of new titles of recent date is given below.

On request of physicians, members of the staff have collected material on the following subjects:

Development of mastoid cells.

Lung abscess.

Congenital heart disease.

Cowper's gland.

Incidence and geographic distribution of multiple sclerosis.

Importance of early recognition in fracture of spine.

Pulmonary actinomycosis.

Puerperal insanity.

Factors contributing to the healing of wounds.

Heredity of polysactylis.

Comparison of wall thickness in the veins above and below the heart.

Rickettsia.

Fused kidney.

Carlos Finlay.
Urethral caruncle.
Work of Novak on endocrine function.
Thyroglossal cysts.
Poro operation.
Insufflation tests.
Corper cultivation of the tubercle.
Hematuria.
Teachings of Father Divine.
Chemistry of tubercle bacilli.

The Library has loaned 734 books to doctors alone, during January, or an average to each member of the Society, of 1 1/5. A report on circulation to doctors will be included in each monthly report during 1935, to show to some degree the use of the Library by members of the Society. It should, however, be borne in mind that this does not include the much greater use of the Library in the Reading Rooms, of which there is no way to keep an accurate record.

H. B. Alsobrook, M. D.,
Secretary.

LOUISIANA STATE MEDICAL SOCIETY NEWS

THE APPROACHING MEETING OF THE LOUISIANA STATE MEDICAL SOCIETY

On April 29, 30, and May 1 will be held the Annual Meeting of the Louisiana State Medical Society. Put these dates down on your calendar, and do not let anything interfere with your attending this meeting. A most interesting program has been provided.

A brief synopsis of the program as now arranged, the details of which will be published in full next month, shows that on Monday, April 29, will be held the meeting of the House of Delegates. That evening there will be a public health meeting with five distinguished speakers, and preceding this will be the Past President's Dinner. On Tuesday the scientific session starts promptly at 9:00 A. M. in the Roosevelt Hotel. On Tuesday at 7:30 P. M. the organization will convene in the Gold Room of the Roosevelt Hotel to listen to the Presidential Address delivered by Dr. Chaille Jamison, and to hear the Annual Oration which will be delivered by Dr. Stanhope Bayne-Jones, a former resident of New Orleans and now Dean of the Medical Department of Yale University. Following this there will be the presentation of the Presidential Medal. The organization will then adjourn to the Tip Top Inn where the annual banquet will be held. On Wednesday will be held the scientific sessions and the second meeting of the House of Delegates.

A variety of entertainments are going to be provided for those in attendance. Particularly important will be the Golf Tournament which will be held at the Metairie Golf Club on Monday and Tuesday.

SCIENTIFIC EXHIBITS

Dr. Ambrose Storck, Chairman of the Committee on Scientific Exhibits, 914 Pere Marquette Building, New Orleans, is anxious to hear from any individual, organization, or group, who may have an exhibit of scientific interest to be used for the Annual Meeting of the Louisiana State Medical Society on April 30 and May 1.

TUBERCULOSIS AND PUBLIC HEALTH ASSOCIATION OF LOUISIANA

Under the energetic leadership of Dr. William Seemann this organization is preparing an active campaign for the prevention of tuberculosis. There has been sent out to the presidents of the district and parish medical societies pamphlets which can be used by the patient and by the doctor to combat tuberculosis. Physicians who are interested in having their patients receive such material may secure copies by sending a postcard to Box 578, New Orleans. These phamphlets should be of inestimable value to the physician in his care of the tuberculous individual.

Dr. Seemann also announces that the 1936 meeting of the National Tuberculosis Association will be held in New Orleans, April 1936. This will be a magnificent opportunity for the physicians of Louisiana and Mississippi to hear at first hand speakers on the broader phases of tuberculosis, as well as the more intimate reports of experimental, clinical and laboratory work. This is the first meeting that the organization has ever held in New Orleans and the third in the South in the last thirty years.

The American Sanitarium Association meets jointly with the National Tuberculosis Association and will bring to the city a very large number of delegates.

EDUCATIONAL MATERIAL ON CANCER

The following educational material is available for physicians and for others. This can be obtained according to the list below. Unless otherwise indicated, the material is for the medical man or for those closely allied to the medical profession such as students and nurses. This educational material could be well used at the meetings of the parish and district medical societies. It does not require for the most part any elaborate explanation.

Slides: Tumors of the Breast—Dr. S. C. Barrow, Dr. P. T. Talbot, Dr. J. R. D'Aunoy. Tumors

of the Uterus—Dr. S. C. Barrow, Dr. P. T. Talbot, Dr. J. R. D'Aunoy.

Film Strips: Tumors of the Breast—Dr. J. A. Lanford. Tumors of the Uterus—Dr. J. A. Lanford, Dr. T. B. Sellers. "Fight Cancer with Knowledge (For women's clubs, luncheon clubs and other lay audiences)—Dr. S. C. Barrow, Dr. P. T. Talbot, Dr. J. R. D'Aunoy, Dr. J. A. Lanford. "Cancer: Its Life History and Practical Measures for Its Control" (For university students, nurses, etc.)—Dr. S. C. Barrow, Dr. P. T. Talbot, Dr. J. R. D'Aunoy, Dr. J. A. Lanford.

Film Strip Projectors: Dr. J. A. Lanford.

Film and Projector (movie): 8 minute Canti film (for medical profession, medical students, nurses, etc.)—Dr. S. C. Barrow, Dr. P. T. Talbot, Dr. J. R. D'Aunoy.

ST. TAMMANY PARISH

The St. Tammany Parish Medical Society met at Covington, Southern Hotel, Friday night, February 8, with a fair attendance of the membership.

The President, Dr. Carl Young was in his chair and the Secretary, Dr. H. D. Bulloch at his desk.

The scientific program consisted in papers by local men. Dr. F. R. Singleton of Slidell read a paper entitled "High Blood Pressure after Forty" and Dr. Roland Young presented the "Highlights of the International Medical Assembly" at Philadelphia as he gleaned them. Both papers were good and much appreciated, and received much favorable discussion.

The meeting adjourned to meet again March 8, at Slidell,

H. D. Bulloch,
Secretary.

NEWS ITEMS

Prof. F. E. LeJeune, of the faculty of the Graduate School of Medicine of The Tulane University of Louisiana, addressed the meeting of the American Laryncological, Rhinological and Otological Society held at Dallas, Texas, January 28 and 29, on "Malignancies of the Larynx and Deeper Structures of the Lower Pharynx and Esophagus."

Prof. Isidore Cohn, Head of the Department of Surgery in the Graduate School of Medicine of the Tulane University of Louisiana, attended a meeting of the Fracture Committee of the American College of Surgeons held at Pittsburgh, Penna., during the week beginning January 14.

Prof. L. L. Cazenavette, of the faculty of the Graduate School of Medicine of The Tulane University of Louisiana, attended the meeting of the Southern Neuropsychiatric Association at Memphis, Tenn., February 6-7.

Medical Director L. L. Lumsden was directed to proceed from New Orleans, La. to Jackson, Miss., Montgomery, Ala., and such other places in those states as necessary, and to places in Louisiana as necessary, and return, for the purpose of carrying on studies of rural sanitation.

Passed Assistant Surgeon E. A. Carberry was relieved from duty at San Francisco, Calif., on or about January 25, 1935, and assigned to duty at the U. S. Marine Hospital, New Orleans, La.

Passed Assistant Surgeon R. C. Arnold will be relieved from duty at New Orleans, La. on or about March 1, 1935, and assigned to duty at the U. S. Marine Hospital, San Francisco, Calif.

Dr. H. W. E. Walther attended the special meeting of the House of Delegates, of the American Medical Association, February 15-16, representing the Section on Urology. The call meeting considered those bills before the present session of Congress in Washington dealing with the social and economic policies of the Association as relates to the medical profession, particularly sickness insurance.

DR. MATAS HONORED

The Bicentennial Anniversary of the National Academy of Medicine of Madrid (1734-1934) was held in that city on December 15, 1934. The Academy is the oldest institution of its kind in Spain and is invested with an official character given to it by the authority and patronage of the Government. The celebration was given the character of a state function by the Presidency of the Minister of Public Instruction and was made memorable by its academic dignity and by the addresses of the President, Dr. Amalio Gimeno, and other representatives of the medical profession in Spain. The display of the bibliographic treasures which are in the custody of the Academy added greatly to the historic impressiveness of the occasion. The Academy conferred the title of honorary fellowship upon 25 distinguished medical representatives of 18 foreign countries, including the European nations, Great Britain, the United States, Mexico and the South American Republics. The United States was represented in the honorary list by Drs. Walter Cannon, of Boston, and Dr. Rudolph Matas, of New Orleans. The Ambassador of the United States, Mr. Bowers, acting as sponsor for the newly elected American academicians, received their citations and diplomas, **in absentia.**

INFECTIOUS DISEASES IN LOUISIANA

The Bureau of Epidemiology, with the coopera-

tion of Dr. J. A. O'Hara, has listed the following diseases enumerated in numerical order and including only those that are reported in double figures. For the week ending January 1, there were reported 58 cases of syphilis, 57 of measles, 47 of influenza, 41 of diphtheria, 38 of gonorrhea, 35 of pneumonia, 23 of scarlet fever, 18 of cancer, 16 of pulmonary tuberculosis, and 10 of hookworm. During this week there were reported 6 cases of smallpox, 4 of which came from St. Tammany Parish. Two cases of poliomyelitis were reported from St. Mary Parish. In the following week, January 26, the incidence of measles had markedly increased, there being 81 cases reported. There were listed also 49 cases of pulmonary tuberculosis, 37 each of syphilis and pneumonia, 36 of scarlet fever, 29 each of chickenpox and diphtheria, 26 of gonorrhea, 12 of influenza, and 10 each of malaria and cancer. For the following week ending February 2, measles undoubtedly was epidemic throughout the State when the unusually large number of 279 cases were reported by physicians throughout Louisiana. Pneumonia had also increased, there being 46 cases on the list of reportable diseases. Other diseases occurring in double figures include 36 cases of diphtheria, 27 of pulmonary tuberculosis, 24 of influenza, 22 of syphilis, 21 of cancer, 16 of scarlet fever, 13 each of gonorrhea and chickenpox. Three cases of smallpox were reported in this week. The flare-up in measles apparently had subsided considerably as in the week ending February 9 there were only 71 cases reported but there were 106 cases of syphilis listed and 69 of gonorrhea. Influenza apparently was also rife, as 63 cases were listed in this week. Diphtheria likewise was relatively prevalent as 46 cases were registered. Other frequent diseases were pneumonia with 42 cases, 25 of scarlet fever, 24 of hookworm, 21 each of pulmonary tuberculosis and cancer, 15 of typhoid fever, and 13 of chancroid. One case of poliomyelitis was reported from Orleans Parish, with a case of tularemia from Calcasieu Parish.

HEALTH OF NEW ORLEANS

The Department of Commerce, Bureau of Census, reports that for the week ending January 12, 1935, there was reported a total of 159 deaths, divided 102 white and 57 colored. The death rate for the three groups was 17.2, 15.6, and 21.3 The infant mortality rate this week was 119, divided about equally between the two races. The following week, ending January 19, showed a very slight decrease in the total number of deaths, there being 155 listed, giving a death rate of 16.8 and divided 104 white with a rate of 15.7, and 51 colored with a rate of 19.1. The infant mortality rate this week was only 89, due largely to a marked reduction in the deaths of white infants. For the next week, the total number of deaths and the death rate was exactly the same as the preceding week. There was a diminution in the number of white deaths, only 93 occurring in the week ending January 26, with a rate of 14.2, whereas among the colored population the death rate was 23.2 as a result of 62 deaths. Again there was but slight change in the total number of deaths reported for the week February 2, two less occurring than in the previous two weeks and giving a rate of 16.6. In this week, however, the death rate of the white population increased to 15.7 as a result of 103 deaths, while the colored rate fell to 18.7 with 50 deaths. The infant mortality rate this week obtained the surprisingly low figure of 53, and the week previous the rate was only 89.

AMERICAN COLLEGE OF SURGEONS MEETING

A sectional meeting of the American College of Surgeons for Alabama, Georgia, Florida, Tennessee, Mississippi and Louisiana, will be held in Birmingham, Alabama, March 7, 8, 1935. Headquarters, Tutwiler Hotel. A cordial invitation is extended to all interested surgeons and hospital officials.

SEVENTH INTERNATIONAL CONGRESS ON INDUSTRIAL ACCIDENTS AND DISEASES

The VII International Congress on Industrial Accidents and Diseases will be held at Brussels, Belgium, from July 22 to 27, 1935. The American Committee of the Congress is under the chairmanship of Dr. Fred H. Albee, New York, for the Section on Accidents and that of Dr. Emery R. Hayhurst, Columbus, O., for Industrial Diseases.

The American delegation to the Congress will sail from New York on August 8th and visit London, Amsterdam, The Hague and Paris and, optionally Budapest. Physicians interested in the Congress or in the medical tour in conjunction with it may address the Secretary, Dr. Richard Kovacs, 1100 Park Avenue, New York.

INSTITUTIONAL CARE OF MENTAL PATIENTS IN THE UNITED STATES

In conjunction with the review of this volume which appeared in the February number of the Journal, it seems only fair to reprint the following statement published in the Journal of the American Medical Association, November 10, 1934:

"Members of the House of Delegates and others have been solicited by Dr. John M. Grimes to purchase a book that he has printed purporting to contain the results of the study recently made by the Council on Medical Education and Hospitals of the hospitalization of the mentally ill in the United States. Such individual use of the Council's material is, of course, wholly unauthorized. A report prepared by Dr. Grimes when he was em-

ployed by the Association was not published because in the opinion of the Council and an advisory committee of psychiatrists and neurologists his conclusions were not supported by the evidence presented. Two partial reports that have already been published will be supplemented when further studies have been completed."

DELOACH, CHARLES THOMAS, Haynesville: Born in 1880. Graduated from the Memphis Hospital Medical College in 1905. Dr. Deloach was a member of the Webster Parish Medical Society and the Louisiana State Medical Society. He had recently moved from Sarepta, Webster Parish to Haynesville, Claiborne Parish. Dr. Deloach died in Haynesville on December 25, 1934.

McGEHEE, Lucius D., Hammond: Born in 1881. Graduated from Tulane Medical School in 1904. Dr. McGehee was a member of the Tangipahoa Parish Medical Society and the Louisiana State Medical Society. He died in Hammond on January 30 of pneumonia. Dr. McGehee is survived by his widow, two daughters, and four brothers, Dr. J. Webb McGehee and Dr. C. G. McGehee, both of Baton Rouge, and Dr. E. L. McGehee and Robert McGehee, both of Hammond.

WOMAN'S AUXILIARY TO LOUISIANA STATE MEDICAL SOCIETY

President—Mrs. T. Henry Watkins, Lake Charles.

President-elect—Mrs. Herman B. Gessner, New Orleans.

Immediate Past president—Mrs. John H. Musser, New Orleans.

Chairman Press and Publicity—Mrs. Robert T. Lucas, Shreveport.

OUACHITA

Mrs. J. Q. Granes of Monroe, the acting president of the Ouachita auxiliary, acted again as "Publicity Choreman" for her group and sent the following:

A luncheon was given at the Business and Professional Women's Club on Dec. 19 with Mrs. A. L. Peters, Mrs. Hinson Coon, Mrs. A. B. Gregory, and Mrs. F. P. Rizzo hostesses. We had almost an entire membership present and as a result a most enthusiastic meeting. Mrs. J. B. Vaughn read the code in a most charming and interesting manner. Mrs. A. G. McHenry told of her trip to the medical convention held in Texas. We were pleased to hear reports from other auxiliaries and their work. At this meeting we had an outstanding speaker from the legal profession, Judge David I. Garrett, who gave us a splendid talk on child welfare. Not the least attractive were the lovely spring flowers, japonicas, daffodils, and hyacinths that graced the February luncheon table.

On January 16th a coffee hour was held at the home of Mrs. F. C. Bennett with Mrs. J. W. Murphy, Mrs. J. G. Snellings, Jr., co-hostesses. The members of the medical profession were the honor guests at this beautifully appointed affair.

ORLEANS

Our State President, Mrs. T. Henry Watkins, paid us a flying visit on Tuesday past to confer with Mrs. Chaille Jamison, our Orleans Parish Auxiliary President, regarding the plans for the Louisiana State Medical Convention to be held in New Orleans on April 30th and May 1st. We do hope that we will have a large attendance at this Convention, for if I might be permitted to divulge a tiny bit of the secret, plans are being laid for a very interesting and pleasant program. We were indeed sorry that Mrs. Watkins could not remain over for our meeting on Wednesday but can understand how very busy she is at this time. However, we are looking forward with a great deal of pleasure to her return for the Convention and hope that at that time we will be able to have a friendly visit with her. While in New Orleans, Mrs. Watkins was the guest of Mrs. Jamison.

It is with a great deal of regret that we have accepted the resignation of Mrs. Norman E. Applewhite, our Parliamentarian. Dr. and Mrs. Applewhite have moved out of the city. Mrs. Herman B. Gessner, State President-Elect, of whom we are very proud, has graciously consented to fill the unexpired term of Parliamentarian, and we are very grateful to her.

The Auxiliary entertained this month at the annual "Mother's Party" and it was indeed a very gay and festive occasion, each guest of honor receiving a red carnation upon registering. Mrs. J. B. Mayeur, mother of our President and Mrs. Matthew Brewster, mother of the President-elect, presided over the tea-table which was most attractively decorated with a heart-shaped center-piece of red godetias and tulips. As co-hostesses for this reception, we asked the widow members of our organization.

WEDNESDAY AFTERNOON, APRIL 3, 2:30 P. M. AT JERUSALEM TEMPLE

Make a date with the Woman's Auxiliary to the Orleans Parish Medical Society. On this day, they will present Dr. Louis Binstock, who will review Stark Young's book, "So Red The Rose" for the benefit of the indigent physicians in Louisiana.

The Auxiliary is lending every effort to make the occasion a success. Mrs. Jules Myron Davidson is Chairman of the Committee in charge. Tickets may be procured from any member of the

Auxiliary, or if more convenient for you, at the jewelry counter in Godchaux Store on Canal street.

Remember the time, the place, the subject. We promise you a delightful entertainment.

SHREVEPORT

The February meeting of the Shreveport Auxiliary was held in Dodd College with Mrs. Clarence H. Webb chairman of the hostesses, Mesdames Pope Oden, A. G. Heath, T. D. Boaz, J. C. Willis, Edgar Galloway, T. J. Bush, Charles E. Rew and J. M. Gorton. Miss Sarah Hughes White, Dean of Music at Dodd College, greeted the guests upon their arrival. After the opening procedure Mrs. C. E. Rew read a memorial to Mrs. George H. Robinson with Mrs. Alvin Sour playing a piano accompaniment. Dr. Dean H. Duncan gave an intensely interesting talk on "Practical Points in Psychiatry." Later Mrs. Marion Hargrove, Program Chairman, presented Mrs. Anna Bell Worden and her piano ensemble who gave a program of two piano music.

IN MEMORIAM

Inasmuch as Almighty God, in His wisdom, hath seen fit to remove from our midst on January 11, 1935, Tressie Smitherman Robinson in all the beauty and charm of her young womanhood, be it resolved that we, the members of the Woman's Auxiliary to the Shreveport Medical Society, do hereby express in this wise our heart-felt regret at her passing.

To her husband, family, and loved ones we extend our sympathy in their bereavement. May the peace of God, which passeth understanding, touch their lives with that blessed benediction which comes from the rememberance of past happy association with this loved one, now gone who by her example helped to enrich the lives of all with whom she came in contact.

As Christ came to bring new hope to mankind through suffering, may they through this young life, hold fast to His Cross as a staff that stands unshaken when the floods of life run high.

Oh blessed friendship, which had its roots on earth, which blossoms in Heaven, whose fruits ripen through the everlasting years.

Be it further resolved that these resolutions be spread on our minutes, and a copy be sent to the young husband.

Ella Rew (Mrs. Charles E.)

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

CALENDAR

SOCIETY MEETINGS

ALCORN COUNTY MEDICAL SOCIETY: Third Thursday of each month, Club Room of Ladren Hotel, Corinth, 7 P. M.

ADAMS COUNTY MEDICAL SOCIETY: Third Tuesday of each month, Natchez Hospital, 7 P. M.

CENTRAL MEDICAL SOCIETY: First Tuesday of each month, Robert E. Lee Hotel, Jackson, 7 P. M.

CHICKASAW COUNTY MEDICAL SOCIETY: Last Thursday of each month, Houston Hospital, Houston.

CLAIBORNE COUNTY MEDICAL SOCIETY.

CLARKSDALE AND SIX COUNTIES MEDICAL SOCIETY: Fourth Wednesday in March and second Wednesday in November, Clarksdale, 2 P. M.

CLARKE-WAYNE MEDICAL SOCIETY: No regular meetings except for election of officers. Called meetings for special sessions.

COAHOMA COUNTY MEDICAL SOCIETY: Second Wednesday of each month, Clarksdale Hospital.

DELTA MEDICAL SOCIETY: Second Wednesday of April and November, 2 P. M. Next meeting, Greenwood, April 10, 1935.

DESOTO COUNTY MEDICAL SOCIETY: First Monday of January, April, July and October, Hernando, 10 A. M.

EAST MISSISSIPPI MEDICAL SOCIETY: First Thursday after the first Sunday of June and December, Meridian, 3 P. M.

HARRISON COUNTY MEDICAL SOCIETY: First Wednesday of each month, King's Daughters' Hospital Gulfport or Biloxi Hospital, Biloxi, 7:30 P. M.

HOMOCHITTO MEDICAL SOCIETY: Second Thursday of January, March, July and October, Natchez, 2 P. M.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY: Second Tuesday of each month, Elks Club, Vicksburg, 7 P. M.

JACKSON COUNTY MEDICAL SOCIETY: Second Thursday of March, June, September and December, Jackson County Hospital, Pascagoula, 7:30 P. M.

JASPER COUNTY MEDICAL SOCIETY: First Tuesday of each month.

MONROE COUNTY MEDICAL SOCIETY: First Monday of each month, alternates between Aberdeen and Amory.

NEWTON COUNTY MEDICAL SOCIETY: First Thursday of each month, 2 P. M., Decatur.

NORTH MISSISSIPPI MEDICAL SOCIETY:

First Wednesday of October, January, April and July.

NORTHEAST MISSISSIPPI THIRTEEN COUNTIES MEDICAL SOCIETY: Third Tuesday of March, June, September and December, 1 P. M. Next meeting at West Point.

PIKE COUNTY MEDICAL SOCIETY: First Thursday of each month, McComb, 7 P. M.

PONTOTOC COUNTY MEDICAL SOCIETY: First Tuesday of each month, 2 P. M.

SOUTH MISSISSIPPI MEDICAL SOCIETY: Second Thursday in September, December, March and June, alternates between Hattiesburg and Laurel, 3 P. M.

TATE COUNTY MEDICAL SOCIETY: Third Wednesday of each month, Senatobia, 8 P. M.

TRI-COUNTY MEDICAL SOCIETY: Second Tuesday in March, June, September and December, Wesson, Tylertown, Monticello or Brookhaven, 12:30 P. M.

WEBSTER COUNTY MEDICAL SOCIETY: Last Thursday of each month, Houston Hospital, Houston.

WINONA DISTRICT MEDICAL SOCIETY: March 19, Durant.

MISSISSIPPI STATE HOSPITAL ASSOCIATION: Biloxi, May 13, 1935.

MISSISSIPPI STATE MEDICAL ASSOCIATION, Biloxi, May 14, 15, 16, 1935. Headquarters, Buena Vista Hotel.

COMMENDATION

In the last issue of this Journal there was printed a copy of a letter from Dr. John Darrington of Yazoo City to Dr. Franklin H. Martin, Director General of the American College of Surgeons, in regard to the election of a negro surgeon of Harlem to membership in that association. Dr. Darrington's protest will probably be of no avail as the negro surgeon was elected by the Board of Regents; but one cannot fail to admire the fine spirit of this superb Southern gentleman in tendering his resignation to the A. C. S. on account of the election of a negro to membership in that august body.

D. W. Jones,
Associate Editor.

PENDING LEGISLATION

(From LEGISLATIVE BULLETIN, No. 4, of the American Hospital Association).

GEORGIA: H. 331. "Creates liens in favor of hospitals and sanitariums."

ILLINOIS: H. 109. "Providing liens for physicians, surgeons, and hospitals."

MASSACHUSETTS: S. 52. "Providing security to hospitals and physicians in the enforcement of reasonable charges for treatment of certain personal injury cases."

H. 61. "Section 117. Each city or town shall provide for treatment, either in a hospital or as outpatients, of indigent persons suffering from gonorrhea or syphilis."

H. 581. "Creating a board of commissioners to administer a motor vehicle insurance fund for providing compensation for injuries and deaths due to accidents caused by motor vehicles."

H. 447. "Relative to liens of physicans for services rendered in the treatment of injuries for which the patient receives compensation."

H. 1615. "Lien for hospitals and physicans on health, accident, and liability insurance policies."

NEBRASKA: S. 127. "Providing for the reporting of personal injuries by hospitals, pharmacies and physicians; and to provide penalties for the violation thereof."

NEW HAMPSHIRE: H. 153. "Provides for liens in favor of hospitals furnishing care, treatment, and maintenance of persons injured in accidents upon the rights of action."

NEW YORK: A. 558. "Adds new section 168, Labor Law, making 8 consecutive hours in any 24, a legal day's work for nurses in public hospitals or hospitals supported in whole or part by public funds."

OREGON: H. 57. "Provides for taxation assessment and taxation of hospitals and religious organizations."

OKLAHOMA: S. 62. "Creating liens to assure doctors and hospitals their payment."

(From LEGISLATIVE BULLETIN, No. 5, of the American Hospital Association).

CALIFORNIA: A. 1037. "Permits only doctors, dentists, osteopaths and licensed persons to use x-ray equipment for the treatment of living persons."

ILLINOIS: H. 109. "Liens for physicians, surgeons and hospitals."

MINNESOTA: H. 212. "To require physicians and surgeons and other persons authorized to engage in the practice of healing to report to the proper police authorities all injuries to patients inflicted by deadly weapons."

NEBRASKA: H. 441. "Provides that hospitals shall be reimbursed from the state highway fund for treatment furnished indigent persons who are injured in automobile accidents."

NORTH CAROLINA: H. 148. "Create lien upon recoveries in civil actions for personal injuries in favor of sums due for medical attention and/or hospitalization."

NORTH DAKOTA: S. 75. "Liens—An Act to provide for liens in favor of Hospitals and Charitable Institutions for care, etc., of persons not subject to workmen's compensation."

WASHINGTON: H. 199. "Provides that hospital nurses shall be forbidden to work longer than ten hours a day and six days a week."

ALABAMA-GEORGIA-FLORIDA-MISSISSIPPI-LOUISIANA-TENNESSEE SECTIONAL MEETING, AMERICAN COLLEGE OF SURGEONS

The southern sectional meeting of the American College of Surgeons this year will be held in Birmingham, Alabama, on Thursday and Friday, March 7 and 8. Headquarters will be at the Tutwiler Hotel.

There will be included in this section the following states: Alabama, Georgia, Florida, Mississippi, Lousiana, and Tennessee.

An active Committee on Local Arrangements, with Dr. James M. Mason as Chairman, and Dr. Edward O'Connell as Secretary, have plans well in hand for an excellent meeting.

Following is a preliminary outline of the entire program:

THURSDAY, MARCH 7, 1935

8:00- 9:00	Registration
9:00-12:00	Operative Clinic
9:30-12:00	Hospital Conference
12:30- 2:00	Medical Motion Picture
2:30- 5:00	Hospital Conference
5:00- 5:30	Annual Meeting, Fellows of the College
7:00- 8:00	Medical Motion Pictures
8:00-10:30	Scientific Session, General Surgery
8:00-10:30	Scientific Session, Eye, Ear, Nose and Throat Surgery

FRIDAY, MARCH 8, 1935

9:00-12:00	Operative Clinics
9:00-12:00	Hospital Conference
12:30- 2:00	Medical Motion Pictures
2:00- 4:30	Hospital Conference
2:30- 5:30	Scientific Session, General Surgery
2:30- 5:30	Scientific Session, Eye, Ear, Nose and Throat Surgery
8:00-10:00	Community Health Meeting

Some of the distinguished visitors from outside of the section who will be present on this occasion are: Dr. Franklin H. Martin, Chicago, Director General, American College of Surgeons; Dr. Irvin Abell, Louisville, Professor of Clinical Surgery, University of Louisville Medical Department; Dr. George Crite, Cleveland, Chairman, Board of Regents, American College of Surgeons; Dr. Winchell M. Craig, Rochester, Associate Professor of Clinical Surgery, Mayo Foundation; Dr. Frederic W. Bancroft, New York City, Associate Professor of Clinical Surgery, Columbia University College of Physicians and Surgeons; Dr. Frederic A. Besley, Waukegan, Professor of Surgery, Northwestern University Medical School; Dr. Robert B. Greenough, Boston, President, American College of Surgeons; Dr. Leroy Long, Oklahoma City, Surgeon, St. Anthony's Hospital; Dr. Charles L. Scudder, Boston, Consulting Surgeon, Massachusetts General Hospital; Dr. Malcolm T. MacEachern, Chicago, Associate Director, American College of Surgeons, and Director of Hospital Activities; Dr. M. N. Newquist, Chicago, Department of Industrial Medicine and Traumatic Surgery, American College of Surgeons; and Robert Jolly, Houston, President, American Hospital Association.

A cordial invitation to attend this most interesting meeting is extended not only to the Fellows and hospitals of the various states included, but to the entire medical profession at large.

ALABAMA STATE HOSPITAL ASSOCIATION

February 3, 1935.

"GREETINGS:—

"The Alabama State Hospital Association extends to the Mississippi Hospital Association a cordial invitation to meet with our association on March 8, 1935, Tutwiler Hotel, Birmingham, Alabama.

"The Southwestern Division of The American College of Surgeons are holding their annual meeting in Birmingham, March 7 and 8, 1935, and are turning the second day, March 8, over to the Alabama State Hospital Association and are co-operating with us in this meeting.

"We hope a number of your association will be with us and participate in the meetings.

"We are looking forward with pleasure to seeing all of you on this date.

"Yours very truly,
"Alabama State Hospital Assn.,
"A. C. Jackson, M. D., Secty.
"By G. E. Mowry."

"The Place
"Birmingham, Alabama
"Tutwiler Hotel
"The Date
"March 8, 1935."

MISSISSIPPI STATE BOARD OF HEALTH

THE TREND OF DEATH RATES IN MISSISSIPPI

A study of death rates in Mississippi over a period of years brings forth many interesting features of the course that deaths from certain causes are taking in the State. A recent analysis of death rates from five of the major preventable diseases in Mississippi—tuberculosis, malaria, pellagra, typhoid fever, and diphtheria—from 1914 to 1933 inclusive, shows that a varying downward trend in the death rates from these diseases is taking place. Comparing these rates with the death rates from causes of death not subject to direct public health control an entirely different picture is obtained. Taking five major causes of death that are rapidly becoming the most prominent causes of death in modern society, such as heart disease, nephritis, cancer, homicide, and automobile accidents, we find that from 1914 to 1933 an alarming steady

rate of increase in death rates from these causes has been taking place.

From the *five preventable diseases* first mentioned, there were 5530 deaths in 1914 against 2546 in 1933, *a decrease of* 54 *per cent.* In 1914 there were 3276 deaths from *the other five causes not subject directly to public health control* against 5346 in 1933, *an increase of* 63 *per cent.* Comparing deaths from these two groups of causes, we find that deaths from the five causes not subject directly to public health conrol are increasing at a rate 9 per cent faster than the deaths from the five preventable diseases are decreasing. Surely this difference should cause our citizens to pause and give thought to those causes of death, the prevention of which is largely a problem of individual control and against which the State Board of Health can do little other than of an educational nature.

It is gratifying to know that deaths from causes subject to public health control are showing a constantly downward trend and that this downward trend is more than making up for the upward trend of other causes as the total death rate from all causes in the State shows a gradual downward trend from 1914 to 1933.

Felix J. Underwood,
Executive Officer.

MISSISSIPPI STATE BOARD OF HEALTH

Dr. Harry E. Handley, assistant director of the Public Health Division of the Commonwealth Fund, spent the first week in February in Mississippi reviewing the activities of the Fund in this State, especilaly the work it has financed in inaugurating uniform and up-to-date systems of record keeping in county health departments. During this month others from the Fund will visit Mississippi to make a detailed appraisal of the public health program in Pike and Lauderdale counties, two counties in which the Fund has co-operated in making possible "Super" health units. At the time of the last appraisal, the Lauderdale and Pike County Health Departments scored almost 750 points out of a possible 1000. It is expected that these scores will be higher when the 1935 appraisals are completed. In Pike and Lauderdale Counties, the health programs have had full and interested cooperation from the physicians, dentists, press, and general public.

Dr. J. C. McGuire is the new director of the Copiah Health Department. He began on February 1, succeeding Dr. J. T. Googe who accepted a position with the Florida State Board of Health. Dr. McGuire earned his M. D. at the University of Louisville in 1928. Since that time he served his hospital internship, practiced medicine, and since 1933 has been engaged in full-time public health work in Kentucky.

During the month of January, 1935 the following Mississippi physicians died:

Dr. Wm. A. Powell, Nesbitt, DeSoto County.

Dr. C. H. Teasdale, Crystal Springs, Copiah County.

Felix J. Underwood,
Executive Officer.

EAST MISSISSIPPI STATE HOSPITAL

Dr. Beverly Smith, who has been associated with Dr. Myer in Phipps Psychiatric Clinic in Baltimore, Maryland, is now on the staff of the East Mississippi State Hospital. Dr. Smith is a native of Mississippi and friends of East Mississippi State Hospital welcome him. He received his literary education at the University of Mississippi along with his premedical work. Finished in medicine at Tulane and has served in Bryce Hospital at Tuscaloosa and also Central Louisiana State Hospital at Pineville, Louisiana, before going to Baltimore.

Dr. O. A. Schmid has resigned his position at the East Mississippi State Hospital to accept work at Wallace Sanitarium in Memphis, Tennessee. He is also connected with the teaching staff at the University of Tennessee.

R. R. Welch,
Superintendent.

CENTRAL MEDICAL SOCIETY

The February meeting of the Central Medical Society was held on the evening of the fifth, at the Robert E. Lee Hotel, W. B. Dobson, President.

Under the clinical cases, Dr. Hickerson, in charge of the tuberculosis clinic which is being held here this week, presented an unusual case, with a very interesting discussion. Dr. Rainer of Yazoo City, presented a clinical case of fracture of the pelvis, which was discussed by Doctors Darrington and Blake.

Dr. James Thompson read a paper containing some interesting observations on a series of cases of appendicitis treated in the State Charity Hospital. As usual, this subject brought forth lively discussion by several members. Dr. Gayden Ward presented a paper on "Galactose Tolerance in Differential Diagnosis of Jaundice," which was discussed by Doctors Parmalee, Wilson, Rembert, Neal and Hand.

Dr. Lee Lipscomb, who has recently located here, with the Diagnostic Clinic, was introduced to the Society, and given a cordial welcome. Dr. John H. McLain was elected to honorary membership in this society, and so recommended to the State Association.

There were thirty-five members present, representing five counties. After the usual good supper, served by the hotel, the society adjourned.

L. W. Long.

COAHOMA COUNTY MEDICAL SOCIETY

The February meeting of the Coahoma County Medical Society has been cancelled due to the fact that the date of the meeting conflicts with the date of the Mid-South Postgraduate Assembly which will be held in Memphis, February 12-13-14-15. The next meeting of the Coahoma County Medical Society will be held in the Clarksdale Hospital the second Wednesday in March at 1:30 P. M. Speakers on the program will be Dr. S. D. Robinson, Clarksdale and Dr. J. A. Slack, Friars Point.

A good many of the doctors in Coahoma County are planning to attend the Mid-South Postgraduate Medical Assembly.

N. C. Knight.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

The regular monthly meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held at the Elks Club, Vicksburg, February 12, beginning with supper served at 7:00 P. M.

The scientific program was devoted to a study of the periodic health examination, the importance and significance of its various phases. An outline based on forms A and B of the American Medical Association was used for the discussions. The following members of the Society took part in the discussions: Drs. R. A. Street, Jr., W. E. Johnston, S. W. Johnston, G W. Gaines, E. H. Jones, W. H. Scudder, L. J. Clark, W. K. Purks, H. H. Johnston

Dr. F. Michael Smith, president, presided.

The next meeting of the society will be held on Tuesday, March 12, at 7 P. M. The scientific program will be devoted to the subject of pediatrics and the committee in charge is made up of Drs. G. C. Jarratt, A. K. Barrier, H. H. Haralson, N. J. Lewis and W. P. Robert. Dr. J. K. Bullock, Jackson, will be visiting essayist.

NORTH MISSISSIPPI MEDICAL SOCIETY

The quarterly meeting of the North Mississippi Medical Society was held at Water Valley on January 30 in the Masonic Temple, beginning at 2:00 P. M.

The program as announced by Secretary A. H. Little, Oxford, was as follows:

(1) Invocation.—Rev. Marvin Metts, Water Valley.
(2) Minutes of Last Meeting and Election of officers for 1935.
(3) "Causes and Preventions of Nervousness."—Dr. H. W. Priddy, Memphis, Tenn.
(4) "Tubal Pregnancy With Case Report."—Dr. C. M. Speck, New Albany.
(5) "Hernias in Industry."—Dr. Robert B. McLean, Jackson.
(6) "Pyelitis and Ureteritis During Pregnancy."—Dr. A. H. Little, Oxford.
(7) Case Reports.—Dr. George Brown, Water Valley.

COPIAH COUNTY

Dr. J. C. McGuire of Somerset, Ky., newly appointed director of the Copiah County Health unit, arrived Friday night, February 1, to assume his duties. Dr. McGuire succeeds Dr. J. T. Googe who was transferred to Jacksonville, Florida.

W. L. Little.

DESOTO COUNTY

An old adage has it, "no news is good news," so everything is lovely in these parts. We are looking forward to next week when the Mid-South Postgraduate Assembly will be in session also to the alumni dinners, where we can enjoy among other things seeing our old school pals again. We predict that this will be the best meeting that this association has ever had. Our own Dr. P. W. Rowland is the chief presiding officer. A large attendance is expected, a fine program has been prepared.

Anent Dr. John Darrington's letter in February issue of our Journal, I beg leave to say that I heartily agree with the good doctor. He is a man of character and courage and this is further reflected in his sensible and valorous letter. I wish him much success in this significant matter.

L. L. Minor.

JACKSON COUNTY

The only news I have to offer this month is very sad indeed.

Dr. J. N. Rape passed on Monday. Dr. McArthur has supplied me with some data on Dr. Rape.

There is nothing I can add to Dr. McArthur's information.

F. O. Schmidt,

DR. JACOB NATHANIEL RAPE

Dr. Jacob Nathaniel Rape, Sr., was born in Scott County, February 18, 1859 and died in Moss Point, February 4, 1935. His death was due to angina pectoris after an illness of five weeks. He was educated in the public schools and graduated in the high school of Conehatta, Newton County. He taught school in Newton and Scott Counties.

He attended the Nashville Medical College during one session and graduated the following year, 1890, at the Tulane Medical College. He took a postgraduate course at the New York Polyclinic in November and December, 1897. He practiced medicine during one year in Texas; then removed to the Delta at Tchula, Holmes County, where he spent ten years in practice.

Moving to Moss Point in August, 1900, where he rounded out almost 35 years, he enjoyed a large and lucrative practice here. He was active in

every good work. He served as alderman for one term and for twelve years was a member of the board of trustees, where he rendered valuable services in the cause of education. He served as county health officer for a number of years and at the time of his death was city health officer.

Dr. Rape was a regular attendant and a member of the Methodist Church, of which he was a faithful and honored steward. He was looked up to as a consistent Christian, whose example was an inspiration to all with whom he came in contact.

He was one of the organizers of the Jackson County Medical Society and its predecessor, the Gulf Coast Medical Society and the only secretary these societies ever had with the exception of one year, when he served as president of the Jackson County Medical Society. As a physician he stood high in the esteem of his fellow doctors and among his patients. He will be greatly missed by the citizenship of Moss Point.

Dr. Rape was the son of Cyrus Rape and Dorcas Ann Graham. He was married at Gulfport, November 11, 1897, to Miss Bertha Amis who was the daughter of Albert G. Amis and Mary Augusta Pettey. Dr. and Mrs. Rape were the parents of seven children, Cyrus A., J. Woodson, J. N., Jr., Alphonso, Katherine, William G. and Graham P., four of whom are living the first two being registered pharmacists.

A. P. McArthur.

JASPER COUNTY

There has been organized a county society in Jasper county by the doctors. Our regular meeting date is the first Tuesday of each month.

We note with interest that Dr. E. M. Gavin, Stafford Springs, Vossburg, is a candidate for floater representative for Jasper and Clarke Counties.

J. B. Thigpen

LEFLORE COUNTY

Dr. R. B. Yates, Greenwood, visited his mother at Philadelphia, Jan. 4.

Dr. G. Y. Gillespie, Jr., Greenwood, was hurt in an auto wreck, as he was returning from a visit to his father at Duckhill, January 13. His car ran off of a bridge, wrecking the car, bruising his back, and breaking two ribs.

Dr. Gwin Mounger of the Charity Hospital, Vicksburk, spent several days here in the home of his mother, Mrs. E. L. Mounger, January 19 to 26.

Dr. J. P. Bates visited in Memphis January 27.

Dr. George Baskervill visited Canton February 2.

Dr. E. R. Shurley, Money, has returned to the Campbell Clinic, Memphis for treatment. He suffered a fracture of femur in an auto wreck in October. Since that time he has not been able to attend to his practice. Dr. Edgar Giles of Avalon, who was hurt at the same time is now able to be out.

Dr. C. N. D. Campbell recently visited in Sumrall, Lamar County.

There are living in Greenwood eight doctors' widows whose husbands practiced in this city. It is said that owing to the strenous life of a doctor, his wife will outlive him. It is recommended that to prolong his life, the doctor should have a hobby. Dr. Baskerville has no *wife*, but his hobbies are horses, cigars, "Scorchy" and Hugh Critz. Dr. Denman says his hobbies are cigarettes and visiting relatives out of town. Dr. Otken's hobby seems to be hunting, Dr. S. L. Brister, Sr., dogs and hunting. Dr. Brister, Jr., golfing, Dr. Adams golf also. Dr. Sandifer hunts a great deal and Dr. Yates hunts when he is not fishing The other doctors here have their hobbies too, but I will spare them this time.

W. B. Dickens

MARION COUNTY

I would like to say a few words relative to the postgraduate course in obstetrics which is now in progress in Marion County.

We have just completed the fifth week in this work and all the doctors are showing great interest in it. And I am frank in saying it is a very fine opportunity to be able to get such a complete course right in your own locality at practically no cost.

I fell that the committee could have made no better selection and was very fortunate in securing Dr. Maxwell Lapham to give these lectures and demonstrations, and every doctor who attends will be wonderfully benefitted thereby.

Dr. Lapham is an artist in this type of work and presents it in a most interesting and instructive way. Besides he is a man of very charming personality.

I am sure the doctors in other localities are envious of us for being one among the first to have this opportunity.

We look forward to the meeting each Thursday night and I hate for the time to come when this course will come to a close.

D. A. Ratcliff

MONROE COUNTY

Hurrah for John Darrington! Once more he has made the bell to jingle. I have known John Darrington many years. I have been associated with him under circumstances that try the fiber of a man's make up. He always registered 100 per cent at such times. He is a clear thinker, a square shooter and can never be made to call wrong right. Personally I care nothing for membership in the aristocratic groups of surgery and medicine. I might have had such memberships had I desired them. But if I had accepted them I should feel exactly as John Darrington does about admitting

negroes into membership. While a member of the State Board of Health, I voted to license negro applicants who gave evidence of qualification and *against* licensing white men who did *not* possess such qualifications. I did this because a constitutional right was involved. But no such legal right is involved in the matter of membership in the college of medicine or surgery. This is more of a social organization, and the members may decide on the question of fitness for membership. No negro can qualify for social equality with southern men and women. Color and racial characteristics mark a natural difference that may not be ignored. Again I say hurrah for John Darrington.

Monroe County Medical Society met in regular monthly session at Amory last night. A gratifying number of the members were present. These monthly meetings are great and are growing in interest and importance. We discussed some questions of scientific interest and other matters that relate to organized medicine. I believe that every observant and thoughtful doctor must realize that a crisis confronts us as a profession. Dr.Fishbein states the question correctly and succintly when he says we must ultimately starve whether we go into or stay out of the set-up that seems to be in the making. The question, it seems to me, is can we *do* anything about the matter? And if we *can* do anything what is it and have we nerve and adhesiveness enough to *do* it? Personally, I believe it is a governmental question that must be correctly solved if the situation is to be saved. This governmental question is, of course, economical in nature. If the masses were given opportunity to earn and receive sufficient money they would care for their own need just as they have always done. And doctors would, gladly, continue to administer to the health needs of the masses just as they have always done. I am, by no means, communistic in my leanings. But I believe in square dealing, If a square deal should be inaugurated this in itself would constitute a "*new deal.*" The banks are bulging with deposits. There is more money in existence then ever before. But it is inactive and is held by less than 10 per cent of the people. The banking department shows that two-thirds of all the money on deposit is held by one man out of one hundred and fifty of those who have money—Not of the entire population, but of those who have bank accounts. It is further stated that ONE man holds subject to his check one sixteenth of all the money outstanding. A *few* have too much—the *many* have too little. Profits on some classes of business must be reduced. Higher wages and better prices for the products of labor must be arranged for. Taxes must be taken from most if not all kinds of real estate and must be placed on sales and incomes. In my thinking something along these lines must be done or revolution and downfall of our government and civilization are certain and imminent. It is up to US to think and act.

There is no sickness in the families of my doctors. There have been no births, death or marriages. The greatest of all component or district medical societies will meet in West Point in March. This is the first quarterly meeting for the current year. If any of my readers should not be there, we shall miss him and he will miss much. Do not fail to come. I am planning to go to Memphis next week to attend the meeting of the Mid-South Post-graduate Assembly. This is the greatest opportunity for postgraduate teaching available for any one in our territory. I hope to be able to tell something of this meeting in my letter next month.

G. S. Bryan

PANOLA COUNTY

News among the Panola County physicians is still in the depression period with very little signs of recovery.

Dr. S. T. McIlwain is spending a few days in Waynesboro.

Drs. W. E. Seale, Crenshaw, and G. H. Wood, Batesville, attended the North Mississippi Medical meeting at Water Valley on January 30.

Dr. J. G. Pou, Courtland, has been suffering from an attack of cold. We hope he has thoroughly recovered.

G. H. Wood

PONTOTOC COUNTY

Pontotoc County Medical Society met in Pontotoc, Tuesday, February 5, with twelve doctors present. We had a very interesting paper by Dr. Carl Aeemster, Jr., Tupelo, on some complications and new treatment for gonorrhea.

We are sorry to report that three of our doctors are confined to their homes on account of illnesses: Dr. R. W. Carruth, Dr. J. W. Gillispie and Dr. E. G. Abernethy. We wish for them a speedy recovery.

R. P. Donaldson

WARREN COUNTY

Of all the odd, queer, incongrous, incompatible and inconsistent happenings of the past year, 1934, in medical instruction and health guidance for the laity, the censoring and debarring by a broadcasting company of the radio talk prepared by Dr. Thomas Parran, in our judgment, takes the lead without a near rival.

According to "Modern Medicine," November, 1934 and January, 1935, issues, the National Advisory Council on Radio in Education decided to sponsor a program on Public Health. The Council appointed a committee composed of Drs. Hugh S. Cumming, Surgeon General; Haven Emmerson, of Colum-

bia University; Alice Hamilton G. E. Vincent, Ray Lyman, Wilbur, etc. This committee invited Dr. Thomas Parran, Jr., State Health Commissioner of New York, to speak over a national broadcasting system, on "Public Health Needs." Dr. Parran accepted and was "all set to go." His manuscript was submitted to the committee the council had appointed who readily endorsed it. A copy also was submitted to the broadcasting censors who "shied away." When Dr. Parran was advised of their attitude he asked for a reason, and was informed that the censors objected to that part of his manuscript that referred to "Scientific Control of Syphilis," and further than this they objected to the use of the word SYPHILIS in a radio broadcast. The magazine, "Modern Medicine," further states that Dr. Parran immediately resigned from the council, he being a member, and wrote the broadcasting system in part, "That perhaps the 500,000 persons in the United States who yearly innocently or otherwise, contract this malady might welcome some hopeful relief rather than listen to the veiled *obscenity* permitted in the vaudeville acts of certain of their commercial programs."

Well, well, such false modesty and stupidity must to a certain extent possess us here in Mississippi, as it seems we have failed to meet the *problem fairly* and *squarely*, and instead have built a $10,000,000 hospital for the care of the mentally sick or deranged, and virtually curtailed to the minimum monies and agencies for the prevention and eradication of those diseases that would reduce the incidence of the "ungeared mind" and the need for hospitalization of such, forty to fifty per cent, and to this extent would also reduce the burden of taxation and human suffering and sorrows from untimely and *Nving* deaths. A modern Cicero might well exclaim, "Lawmakers know it, Society sees it, yet this traitor lives."

Dr. W. D. Hickerson, of the State Tuberculosis Sanatorium, visited our city this past month, and while here, with a nurse from the local health department, visited all the physicians of the city and county who sent patients to the Doctor's Diagnostic T. B. Clinic held here in December, 1934. Our doctors seem to appreciate this service.

A news item last week from West Point, carried the notice of the death of Mrs. I. N. Knox, the mother of Dr. I. C. Knox, of this city. The writer and the entire membership of the Issaquena-Sharkey-Warren Counties Medical Society extend sympathy to Dr. Knox and his family, and many of us out of our personal experiences can assure him of the truthfulness of Seneca's words concerning sorrow, "Those things which were hard to bear, are sweet to remember."

We note with keenest interest the news item from Monroe County advising that our beloved friend of many years, Dr. S. R. Dean, of West Point, was their new president. Any man who has known intimately Dr. Dean as we have, would unhesitatingly proclaim that Voltaire had in mind a beloved physician like unto Doctor Dean when he wrote, "But nothing is more estimable than a physician, who having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, exercises his art with caution, and displays *equal* attention to the rich and the poor."

We are advised that Dr. George Y. Hicks has resigned his position as house surgeon at the State Charity Hospital, Vicksburg, and has returned to New Orleans, Louisiana, to take further course in operative surgery.

Dr. H. T. Ims.

WASHINGTON COUNTY

The many friends of Dr. F. M. Acree of Greenville regret to learn of the death of his father, Dr. F. M. Acree, Sr., of Dover, Tenn., and wish to extend their deepest sympathy to him and his family. The late Dr. Acree was 78 years old. He was a member of the American Medical Association and had been a practicing physician in Dover for more than a half century. He is survived by his wife and four sons, George Acree of Memphis, Tenn., Russell Acree of Dayton, Ohio, Lester Acree of Dover, Tenn., and F. M. Acree of Greenville.

Dr. T. L. Dobson of Leland is spending several weeks in New Orleans where he is taking a post-graduate course.

Mrs. T. L. Dobson and her mother, Mrs. Hay of Leland will spend a few days with Dr. Dobson during his stay in New Orleans.

Miss Virginia Witte, charming daughter of Dr. and Mrs. K. L. Witte of Leland, was the guest of Mr. and Mrs. Elbert Phillips of Columbus, this past month. Miss Witte visited the Baptist Workshop of which she was formerly secretary reviewing contacts with many of her former friends. Miss Witte graduated from M. S. C. W. in 1933.

Dr. and Mrs. W. B. Dickens of Greenwood were guests of their son and daughter, Mr. and Mrs. John Dickens of Leland, a few days during January.

The many friends of Dr. S. L. Lane of Hollandale regret very much that he was in the King's Daughters Hospital, Greenville, as a patient because of an infected arm, a few days during January. It is gratifying to know that he is able to be out again.

Friends of Dr. and Mrs. W. P. Shackleford of Hollandale are delighted to know that Mrs. Shackleford has recovered sufficiently to leave the King's Daughters Hospital, Greenville, where she was under treatment for about two weeks.

Dr. E. J. Hudspeth of Doddsville, was a patient in the King's Daughters' Hospital recently. His many friends are delighted to know that he is able to be out again.

Miss Dorothy Thompson, the charming and talented daughter of Dr. and Mrs. C. P. Thompson of Greenville spent a few days with her parents during the "Ole Miss" midterm examination period.

Dr. Jerome Hirsch, Jr., son of Dr. and Mrs. J. B. Hirsch of Greenville, enjoyed a short visit in Memphis recently.

The regular monthly meeting of the D. A. R. was held at the home of Dr. and Mrs. J. C. Pegues of Greenville this past month. Mrs. Pegues is first vice-regent.

Dr. and Mrs. Paul Gamble, Greenville, motored to Jackson recently.

Mrs. Paul Gamble and Mrs. F. W. Norwood of Greenville attended the Women's Club meeting in Winona. Mrs. Gamble was guest speaker and talked on Roadside Beautification.

Mrs. Paul Gamble and Mrs. T. B. Lewis of Greenville motored to Jackson this past month and attended the Roadside Improvement meeting.

Mrs. Paul Gamble of Greenville entertained recently at a beautiful supper complimenting Mrs. Egbert Jones of Holly Springs, National Historian of Colonial Dames, who was here under the auspices of the Colonial Dames to show historic pictures of Mississippi.

Dr. and Mrs. D. C. Montgomery, Montbury, Greenville, have had as their house guest recently Mrs. A. A. Baumè of Memphis.

Mrs. D. C. Montgomery of Greenville spent several days with her sister, Mrs. John Bullington of Memphis, recently.

Friends of Dr. R. E. Wilson, Greenville, are glad to see him out again after his illness of a week with influenza.

Dr. J. C. Pegues, Greenville, visited his father, Mr. D. K. Pegues of Scottsboro, Ala., this past month.

The many friends of Dr. and Mrs. L. C. Davis, Greenville, rejoice with them over the continued improvement of their daughter, Ada Lee.

Dr. E. W. Eubanks. Greenville, was called to Cleveland with the National Guard during the trial of James Coyner. Dr. Eubanks is a captain in the National Guard.

Friends of Dr. R. A. Haggard, Arcola, are delighted to hear that he has entirely recevered from a recent illness.

Dr. J. A. Beals, Greenville was confined to his home a couple of days on account of an attack of flu. His many friends are glad to see him out again.

Dr. E. T. White, Greenville, is able to be out again after an attack of flu.

Dr. William Hickerson of Sanatorium, working with the local physicians and the health department, conducted his second chest clinic for early diagnosis of tuberculosis in Greenville and Leland during the week of January 21-24. In spite of the snow 28 people were examined and seven cases of tuberculosis found, five of whom were considered minimal tuberculosis.

Mr. H. A. Kroeze, Division of Sanitary Engineering of the State Board of Health, Made an official visit to the County Health Department on February 8.

Dr. Felix J. Underwood and Dr. J. A. Milne of the State Board of Health are scheduled to address a county meeting of the health committees of the various parent-Teachers Associations at a meeting in Greenville on February 20.

John G. Archer.

WINSTON COUNTY

We have no news of interest this month from our doctors. All are hoping that ultimately everything will be well.

Our attention is called to a letter written by Dr. John Darrington pertaining to the admission of a negro being admitted to full fellowship in the American College or Surgeons. I am not a member of this distinguished group. But I echo the sentiment of all the doctors of this section in saying, we think it ridiculous and for lack of either knowledge of the South's attitude toward the negro or a normal sense of pride our Southern Associations possess and further it is destructive to any ambition to become a member of this honorable group.

We are hoping by the next issue of the Journal to be able to report a considerable improvement in the new Government set-up, relative to employment, which will be a great encouragement to the doctors of this section.

M. L. Montgomery.

THE WOMAN'S AUXILIARY TO THE MISSISSIPPI STATE MEDICAL ASSOCIATION

President — Mrs. Henry Boswell, Sanatorium.

President-Elect—Mrs. Leon S. Lippincott, Vicksburg.

Secretary—Mrs. Adna G. Wilde, Jackson.

Treasurer—Mrs. C. C. Hightower, Hattiesburg.

Press and Publicity Chairman—Mrs. Hugh H. Johnston, Vicksburg.

ANNUAL MEETING—BILOXI, May 14, 15 and 16.

THE WOMAN'S AUXILIARY TO THE CENTRAL MEDICAL SOCIETY

Dr. and Mrs. Noel C. Womack recently had a lovely trip out of town. Mrs. Womack visited Mrs. Howard C. Ross in Memphis while Dr. Womack attended the executive meeting of the American Academy of Pediatrics in Nashville, Tenn.

Dr. and Mrs. T. E. Wilson are rejoicing over the arrival of a tiny baby girl to whom they have given the name, Mary Gwendolyn.

Friends of Mrs. Guy C. Verner will be glad to know she is recovering from a long illness.

Mrs. Robert B. McLean is convalescing in Winona. She recently underwent an operation for appendicitis.

The Auxiliary honored their husbands at a banquet Friday night, February 8, in the convention hall of the Edwards hotel. Mrs. Noel C. Womack acted as toastmistress and Mrs. H. C. Ricks gave the welcome address. The response was given by Dr. J. P. Wall. The state president, Mrs. Henry Boswell, and Dr. Boswell, of Sanatorium were special guests. A play entitled, "Betty, Behave" was given by Miss Helen Harvey McGee, Miss Ola Pearl Burns, and Miss Helen Ricks.

Mrs. W. F. Hand
Press and Publicity Chairman

THE WOMAN'S AUXILIARY TO THE DELTA MEDICAL SOCIETY

The Leflore County Unit of the Woman's Auxiliary to the Delta Medical Society met in the ladies parlors of the Elks Club, on Monday evening at 7:30.

After the secretary's report, Mrs. L. B. Otken gave an interesting paper on the founding and history of the State Medical Auxiliary.

Plans for placing the essay contest on the Preventorium in the county schools were perfected and Mrs. J. C. Adams and Mrs. I. B. Bright, Jr., were appointed to carry out this program.

As this was the first program since the benefit dance for the Preventorium, an enthusiastic letter of thanks from Mrs. Henry Boswell, president of the State Auxiliary, was read.

The next meeting will be held on the second Tuesday in February, at 3 o'clock in the afternoon, at the Elks Club. At this time Mrs. Ira B. Bright, Jr. will discuss the life of Jane Todd Crawford.

Mrs. J. C. Adams
Secretary.

THE WOMAN'S AUXILIARY TO THE DELTA MEDICAL SOCIETY

The Humphrey's County Unit of the Woman's Auxiliary to the Delta Medical Society gave a spaghetti dinner in Belzoni, January 12, the proceeds to go to help defray expenses on roentgen ray plates of tubercular suspects of Humphreys County.

We were pleased with the results as the public in general was very cooperative.

Mrs. T. J. Barkley.

VICKSBURG SOCIAL NOTES

Mrs. Leon Lippincott and son, Stanley, are in New Orleans.

VICKSBURG SOCIAL NOTES

Mrs. George Street entertained at an informal tea for her mother, Mrs. Embry, of Buena Vista, Va., and her sister, Mrs. Towers, of Rome, Georgia.

The many friends of Mrs. Laurance Clark are glad to know that she is able to be out after a prolonged illness.

Dr. and Mrs. Gus Street are in Memphis attending the Mid-South Post graduate Assembly.

Mrs. F. M. Smith and Mrs. Hugh Johnston went to Jackson to see "Green Pastures."

Mrs. B. B. Martin entertained at a lovely bridge party in honor of her daughter, Mrs. Benson Martin, Jr., of New Orleans, Mrs. Sam Look of Lexington, Ky., and Mrs. Raymond Birchett.

BOOK REVIEWS

Amoebiasis and Amoebic Dysentery. By Chas. F. Craig, M. D., C. C. Thomas, 1934; pp. 315.

This splendid monograph is the product of an experience gained during the past thirty years by Col. Craig, the outstanding authority on the subject in this country. The book covers all phases of the disease, beginning with the historical aspects and ending with a chapter on treatment. A chapter is devoted to symptomatology in which, under complications, the author lists abscesses of the liver, lungs, brain, spleen, etc. Two chapters are devoted to diagnosis and the author emphasizes that the most important of these diagnostic methods is the examination of the stools, of course, and refers very modestly, but in some detail, to his own complement fixation tests. It will probably be difficult to persuade most clinicians that the best method of collecting specimens of stool for examination is not by means of the proctoscope, which is easy, cleanly and very selective. The experimental and pathological aspects of amoebiasis are thoroughly reviewed. The bibliography is comprehensive. This book is certainly to be recommended to all students of this disease, and no library can be considered complete without this valuable book. The publishers are to be congratulated on the production of a pleasing volume, extremely well illustrated. C. J.

Physiology in Health and Disease: By Cary J. Wiggers, M. D. Philadelphia, Lea & Febiger, 1934. pp. 1156. With 182 engravings.

"The modern practice of medicine is largely applied physiology. Within two generations physi-

cians have remolded the major concepts upon which the care of the sick is based. For a time the science of medicine pushed the art of medicine into secondary position. Now a rational method combining the two is emerging." So wrote Ray Lyman Wilbur in an "appreciation", in Hewlett's "Pathological Physiology of Internal Diseases."

Hewlett, a trained physiologist who developed into a skilled practitioner, wrote his book to summarize briefly for advanced medical students and for physicians "those changes in function that are presented by patients suffering from internal diseases." In recent years there have been two text books of physiology written for students about to enter upon their clinical instruction, and at the same time, for those of a maturer clinical experience who may desire to seek the physiological interpretation of diseased conditions. The first of these is Macleod's "Physiology and Biochemistry in Modern Medicine", the second, Wright's "Applied Physiology", in which latter work the author, always remembering that the "aim of physiology is to consider how the internal environment of the body is kept constant in spite of continual alterations in the external environment", stresses the applied value of this to the clinical aspects of disorder in function.

Both of these works, as valuable as they are, have defects, as do all text books. Macleod is too long and on account of too detailed a presentation of opposing views, at any rate in earlier editions, leaves the reader with a confused, unsettled feeling that not much is really known. Wright is characterized by a lesser evil, easily corrected by the lecturer, in being brief and concise to the point of being considered difficult reading by many.

Wiggers' text book "is written primarily to meet the needs of medical students, clinicians and progressive practitioners of medicine." "Diseases are experiments that nature makes on human beings, and the signs and symptoms are manifestations of altered function." "The physiological manner of clinical approach makes it incumbent upon teachers of medical physiology to give greater regard to its correlation with clinical medicine and surgery; but this must be accomplished without sacrificing consderations of the biophysical, biochemical and mathematical aspects of physiology as a pure science." Wiggers has experimented with a plan of teaching that (1) stresses the application of pure sciences to physiology, (2) inculcates general principles of physiology, (3) outlines and surveys the functions of various tissues, organs and systems, and (4) correlates physiological alterations produced experimentally with aberrant manifestations illustrated on patients, and has written his text book to be "not merely useful during the curricular span allotted the subject of physiology but one that may also be valuable in subsequent professional years." He has omitted extensive discussion of biochemistry and of the special senses. Instead of including merely a tidal volume of knowledge that the average student might be expected to know at the end of the course, he has incorporated a large supplementary volume of information of value for reference in particular fields of medicine and physiology. "A suficiency of knowledge for the interpretation of disease can no more be gained from exposure to an initial course of physiology than it can for a career in physiology. The medical student finds frequent need for supplementing his tidal knowledge of physiology after he has passed to his clinical years and into the practice of medicine." He becomes interested in "finding detailed information regarding some particular phase of the subject." "Nothing short of rather detailed information, supplemented by a liberal citation of leading references, suffices for his needs. Inclusiveness is therefore a prerequisite in a book designed for such use."

The author has obviously fulfilled his expressed views in the text book before us. A criticism, however, that will be made by medical students and practitioners is that there is too much space devoted to the means by which——the instrumentation and recording—physiological information has been gained. See, for instance, the chapter on Movement. Bio-Energetics is discussed at too great length for anyone except an expert in this narrow field of physiology. The same is true of Bio-Electric Phenomena. The first eleven chapters, covering 157 pages dealing with peripheral and central nervous systems, are much too long and the diagrams are not clear. The description of cerebellar control is needlessly detailed.

The chapter on the Physiology of Sleep and other unconscious states is uncommonly good, but we do not yet know why we go to sleep. The chapter on the Automatic Nervous System is not so good. The five chapters in Section 4 on Blood and Blood Forming Organs are very good. In Section 5, consisting of seven chapters on Respiration, too much space is given to mechanical and physico-chemical aspects. Henderson's nomogram on p. 366 is a page wasted. The chapters on the Regulation of Respiration, Anoxemia, Clinical Disturbances of Respiration, are excellent.

Section 6, sixteen chapters, two hundred and seventy-five pages on the Heart and Circulation, is Wiggers special field and is a masterly presentation. But it suffers from the inclusion of too much method, too many records, diagrams, and too much minute, and sometimes irrelevant, detail.

Section 7, six chapters of ninety-nine pages on the Alimentary Tract, is good, somewhat longer perhaps than one usually finds in text books of physiology. Section 8 of sixty-two pages, deals with water transport and excretory systems and is adequate. Fig. 171 on p 817 will not aid very much in making clear lymph excretion and re-

absorption. Twelve pages are devoted to Edema. The chapter on Urinary Secretion and its Perversions is brief and excellent. Sections on Metabolism and Nutrition, on Endocrine Organs and Reproduction close the book. The chapters on the Endocrine organs, though adequate, show little originality. There is an index of thirty-six pages.

A medical student will be discouraged by the length of the presentation and the discussions; a practitioner by the methodological details of the book. Anyone, however, able to overcome these primary adverse impressions will be repaid by consulting its pages for information on a special topic. If a revewer may venture to predict, the chief value of this text book will be as a work of reference.

Henry Laurens, Ph.D.

Aids to Operative Surgery: By C P. G. Wakeley, D. Sc. (Lond.), F. R. C. S. (Eng.), F. R. S. (Edin.) 2nd Ed., Baltimore, William Wood and Company, 1934. Pp. 225. Price $1.25.

This pocket size compend of surgical operations contains an extensive collection of operative procedures of proven value presented in brief. Unfortunately, several newer procedures of merit are not included even though some which have been omitted are now widely employed.

Ambrose Storck, M. D.

The Heart Visible, A Clinical Study in Cardiovascular Roentgenology in Health and Diseases: By J. Polevsky, M. D. Philadelphia, F. A. Davis Co., 1934 pp. 207. Price $5.00.

This small volume written for the cardiologists as well as the roentgenologists is divided into six parts.

In Part 1. General Considerations—he mentions the following factors that influence the shape, the size and the position of the heart:

(a) The position of the diaphragm.
(b) The respiratory phase of the lungs.
(c) The condition of the pleural sacs.
(d) The course of the spinal column.
(e) Other disfigurements of the chest.
(f) The presence of substernal thyroid.
(g) Abdominal conditions.
(h) The intracardiac volume of blood.
(i) Age, sex, and occupation.
(j) Position of the patient.

With numerous illustrations and diagrams of the various conditions.

Part II. is a description of the different methods of roentgenologic study of the heart.

Part III. is devoted to the normal cardiac configurations with very good diagrams and illustrations of the different borders of the heart in different positions. Under cardiac diameters he states that all attempts at a very careful measurement of supernumery diameters of the heart shadow are very much of love's labor lost, with the possible exception of two diameters—the transverse of the heart and the lumen of the arch of the aorta. All the rest are far from being accurate and are of little practical value in routine work-a-day cardiac roentgenology. This sounds more reasonable than some of the more elaborate measurements sometimes stated by other writers.

Part IV. The Abnormal Heart.—The following are the criteria mention by means of which the examiner reaches a diagnosis of a pathologic heart:—

(a) Deviation from the normal size.
(b) Deviation from the normal shape of the heart as a whole as well as of its various segments.
(c) Abnormal pulsations.

The author points out the difficulty in determining enlargement of the heart and the importance of the examiner availing himself of all the clinical data obtainable, such as—Blood pressure estimation, condition of the kidneys, Wassermann reaction, and if possible clinical diagnosis of the cardiac lesion.

The size of the heart is very important in the diagnosis of heart disease. In certain types of cases the roentgen ray is the only source that we can expect to get anything liketrue cardiac dimentions.

Under configuration in various valvular lesions attention is called to the two types—aortic and mitral, with descriptive diagrams. Congenital heart lesions are well described from a roentgen ray standpoint as well as some of the physical findings.

Part V. is devoted to diseases of the pericardium.

Part VI. The Great Vessels—The normal and the pathologic aorta is described. Other writers have described dynamic dilation of the thoracic aorta. The diagnosis of aneurysm being made during life and at post mortum the aorta was found normal in size. The last chapter is devoted to the pulmonary arteries and other large vessels. The author stresses the value of the flouroscope. He also calls attention to the value of the clinical history as well as signs brought out by inspection, palpatation, percussion and auscultation.

Viewing the book from the standpoint of a cardiologist, the reviewer feels that it can be recommended to those interested in diseases of the heart.

J. M. Bamber, M. D.

Surgical Applied Anatomy: By Sir Frederick Treves, Bart, 9th edition, revised by C. C. Choyce, C. M. G., C. B. E., B. Sc., N. Z. M. J., Edin., F. R. C. S., Eng., Philadelphia, Lea & Fe-

biger. 1934. pp. x plus 720, figs 174. Price $4.00

This familiar handbook of applied anatomy is well described by the editor of the present edition: "Fifty years have fled since this medical classic was first written, but it still deserves to hold its place as a compendious summary of an extensive and indispensable subject. Written by a Surgeon and several times revised and expanded by an Anatomist—Sir Arthur Keith, it gives a prsentation of facts and their applications such as is not to be found in the same collected form elsewhere, and its appeal to the Senior Student and to the teacher therefore persirs. In revising the book for the present edition I have found it difficult to preserve the relationship between the anecdotal surgical anatomy of Treves's time and that of to-day. Though much more of 'Treves' has had to go, in the interests of anatomical and surgical detail, I have retained, for the sake of historical interest, some details that do not now worry the surgeon to any great extent."

HAROLD CUMMINS, Ph.D.

Clinical Pathology of the Jaws: By Kurt H. Thoma, D. M. D., Springfield, Ill., Chas. C. Thomas, 1934. pp. 643. Price $9.00.

This publication does not disappoint those who, knowing Kurt H. Thoma's reputation, expected a thorough and practical work. The paper and print are excellent. The contents, including well written descriptions of pathologic material and illustrative cases with their accompanying roentgenographs, are unusually instructive. The section on cysts, to cite only one of the legion groups, is notable for its well defined classification. From malformations to tumors the work is comprehensive and useful.

HERMANN B. GESSNER, M. D.

Obstetric Medicine: Ed. by Fred L. Adair, M. A., M. D., F. A. C. S. & Edward J. Stieglitz, M. S., M. D., F. A. C. P. Philadelphia, Lea & Febiger, 1934. pp. 734. illus. Price $8.00.

"Obstetric Medicine" is a volume which compilates and correlates the knowledge and teaching of a group of distinguished contributors concerning the problems of diagnosis, therapy, and prognosis of disease occurring coincidentally with pregnancy. It does not attempt to cover every disease which may complicate pregnancy, but the more common of these conditions and those frequently encountered are treated in a thorough manner, so that the general practitioner or the obstetrician may find here in one volume a ready source of information and assistance in diagnosis and treatment.

The list of contributors is a very distinguished one, and in itself is a guarantee of the excellence and thoroughness of the work. Throughout the work conciseness is well combined with readability and style, and the result is a very excellent addition to our medical library.

LEWIS A. CURRY, M. D.

The Patient and the Weather: by William F. Petersen, M. D., Ann Arbor, Mich. Adwards Bros. Inc. 1934. pp. 372. Price $5.00.

This erudite study of the patient and the weather bids fair to become a classic in its particular field. The book fairly bristles with sound scholarship. The thorough investigation and the painstaking study are at once obvious. The subject, though mentioned by Hippocrates and a few of the ancients, is yet a comparatively new one. Into this virgin field the author has brought an array of facts that are impressive in their importance and because of the many implications that the facts present. Space will not permit of a detailed discussion of the book. There are many statements to which some will take exception. The number of cases presented is comparatively few and one can only say that though they do not positively prove the case in point the weight of opinion certainly tends in that direction. It is interesting to note that it remained for a bacteriologist, that it is not only the parasite which is the all-important consideration in disease, but the meteorological influence is of equally great consideration, and in some conditions, such as poliomyelitis, more so. The author attempts to prove that the environment as characterized by weather is of tremendous importance in the genesis and evolution of disease. He cites figures and authorities to prove that mental superiority and inferiority and inadequacy occur in great numbers in certain portions of the country where individuals are constantly influenced by distinct meteorological conditions. Thus he states that insanity and genius are "regionally distributed and seasonally conceived." Malformations, suicide and mental diseases vary in parts of the country as the weather presents cyclonic disturbances and frequent storms, or whether the weather is placid and dry or humid. He develops the thesis that certain diseases, as poliomyelitis, are seasonal because of the great influence of climatic conditions on the autonomic nervous system. He attempts to show the influence of the weather on the different types of individuals. He discusses in detail the differences that characterize the pyknic and the leptosome and lays especial emphasis on their automotic nervous mechanism with its mode of reaction to the environment and how the environment (i.e. climatic conditions) differently influences these reactions and so brings about entirely different reactions and diseases to these individuals. Detailed physical examinations and blood chemistry accompany the many case reports. This very fragmentary discussion does an injustice to this great work. This important subject

merits the very earnest study of all interested in the advance of medicine.

I. L. Robbins, M. D.

Aids to Osteology: By Philip Turner and N. L. Eckhoff. 3rd ed. Baltimore, William Wood & Co. 1934. pp. vii + 222. Price $1.50.

This compend of osteology is one of thirty-nine volumes now available in the "Students' Aids Series. Specially designed to assist students in grouping and committing to memory the subjects upon which they are to be examined, yet offering the general practitioner an invaluable means of brushing up."

Harold Cummins, Ph. D.

Minor Surgery in General Practice: By W. Travis Gibb, M. D. New York, Paul B. Hoeber, Inc. 1934. pp. 429.

The author of this book has written a good outline of minor surgery. It could only have been written by one who has had a vast amount of practical knowledge. Several chapters may be mentioned as being well covered,—i. e. radiotherapy; conditions of the upper and lower extremities; fractures and dislocations. The style used here is different from that in which most minor surgeries are written. One notes that the author avoids the use of proper names in designating all methods of treatment. One familiar with the subject may acquire many points of value herein, but the reviewer would not recommend it as a book of reference for either interne or general practitioner.

Emile Bloch, M. D.

Human Personality and Environment: By C. M. Campbell, M. D., New York. The Macmillan Co., 1934. pp. 252. Price, $3.00.

Dr. Campbell has given us a charming study drawn from several lectures given to a lay audience at Lowell Institute in Boston, in 1933. The author skillfully integrates and disintegrates that most complex and rather elusive thing which we call personality, to show how it functions in its several parts and as a unit. The development of this personality from the fertilized ovum to the last moments of our earthly existence is beautifully presented. The relationship of the personality to the physico-chemical and its cultural environment are graphically shown. The interrelationship of the personality and its environment is so intimate that the change from one to the other is often one of a gradation of shades. The heredity and the environment are factors so intricate and complex that much uncertainty exists as to the true value of each in the development of the personality. The adequate reactions of the personality are presented with splendid references to the biographies of important men in the world's affairs, as examples. The inadequate reactions of the personality resulting from improper forces molding the personality and the successful attempts of outstanding individuals to correct these errors are clearly demonstrated. One is impressed in reading this volume with the broad learning of the author and the sound scientific outlook on a subject that only too often today smacks of clever charlatanism.

I. L. Robbins, M. D.

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